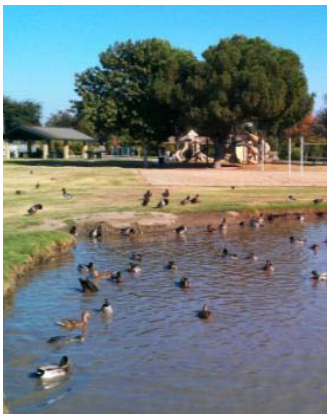
# General Plan Background Report

# City of Hanford









# GENERAL PLAN BACKGROUND REPORT

# CITY OF HANFORD
# GENERAL PLAN UPDATE

Prepared for:

315 North Douty Street
Hanford, California 93230
Contact Person: Darrel Pyle
Phone: (559) 585-2516

Consultant:

Quad Knopf
901 E. Main Street
Visalia, California 93292
Contact: Steve Brandt
Phone: (559) 733-0440
Fax: (559) 733-7821

March 2014



130118

# TABLE OF CONTENTS

***Description*** ***Page No.***

# TABLES AND FIGURES

## *Tables* *Page No.*



## *Figures* *Page No.*

# CHAPTER 1

# INTRODUCTION

# CHAPTER 1
# INTRODUCTION

## 1.1 What is a General Plan?

Every city and county in California is required by State law to prepare and maintain a planning document called a general plan. A general plan states a desired vision for the community's future. It contains policies that guide the way land is developed and used. State law requires that each city adopt a general plan "for the physical development of a city and any land outside its boundaries which bears relation to its planning." A city's general plan should be updated periodically, roughly every ten years.

A general plan is the foundation for establishing goals, purposes, land use, major transportation routes, and location and general size of future community facilities. It expresses the community's development goals and embodies public policy relative to the distribution of future land uses. All other city policies must be consistent with the general plan. This is why the general plan has been referred to as a city's constitution for development.

State law requires that a city's general plan be comprised of seven required elements: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. In the San Joaquin Valley, there is also a required Air Quality Element. In the past, many jurisdictions wrote each element as a separate document. However, the current practice is to combine all elements, except Housing, into one document.

State law requires that the "general plan and elements and parts thereof comprise an integrated, internally consistent and compatible statement of policies" (Section 65300.5).

The General Plan Guidelines are the state's only official document explaining California's legal requirements for general plans. Planners, decision-making bodies, and the public depend upon the General Plan Guidelines for help when preparing local general plans. The courts have

***Housing Element***

*Since the State of California specifically dictates when a Housing Element is to be updated, it almost always is prepared as a separate document. In the past Hanford has joined with Kings County, Corcoran, Lemoore and Avenal to prepare a Countywide Housing Element. The next Housing Element is due in 2015.*

periodically referred to the General Plan Guidelines for assistance in determining compliance with planning law. For this reason, the General Plan Guidelines closely adheres to statute and case law. It also relies upon commonly accepted principles of contemporary planning practice.

All specific plans, master plans, precise plans, subdivisions, public works projects, and zoning decisions made by the City must be consistent with the General Plan. The current General Plan Update is designed to update the City of Hanford 2002 General Plan, and will look at future growth through the year 2035. The City of Hanford General Plan Update program will accomplish the following:

1. Provide the public opportunities for meaningful participation in the planning and decision-making process;
2. Provide a description of current conditions and trends shaping Hanford;
3. Identify planning issues, opportunities, and challenges that should be addressed in the General Plan;
4. Explore land use and policy alternatives;
5. Ensure that the General Plan is current, internally consistent, and easy to use;
6. Provide guidance in the planning and evaluation of future land and resource decisions; and,
7. Provide a vision and framework for the future growth of the city.

***Citizens Advisory Committee (CAC)***

*A team of citizens appointed by the City Council, working as volunteers, made up of businesspersons, civic leaders and local residents.*

A general plan has three defining features:

**General.** As the name implies, a general plan provides general guidance that will be used to direct future land use and resource decisions. It may contain policies on a particular topic that would require a more detailed study to implement.

**Comprehensive.** A general plan covers a wide range of social, economic, infrastructure, and natural resource issues. These include topics such as land use, housing, circulation, infrastructure, utilities, public services, recreation, agriculture, biological resources, and other topics.

**Long-range.** General plans provide guidance on reaching a future envisioned 20 or more years from the present. To reach

this envisioned future, a general plan includes policies and actions that address both immediate and long-term needs.

## 1.2 General Plan Update Process

The City of Hanford has assembled a Citizens Advisory Committee (CAC) to assist in preparing the General Plan. The City Planning Commission and the City Council's role is to provide review and oversight, and ultimately make the final decisions about the document.

There will be opportunities for the public to review and respond to proposed general plan goals and policies in informal settings, public workshops, and public hearings.

Later in the process, the CAC will also have opportunities to provide input on updating the zoning regulations. Zoning regulations will be the tool to ensure that the goals and policies of the General Plan and the community's vision will be carried out[i].

## 1.3 Purpose of the General Plan Background Report

The Background Report summarizes information on the issues that will be addressed in the General Plan, focusing on existing trends and conditions. This report provides the information on existing conditions that will be used in developing the goals and policies that will be formulated in the General Plan Update and serves as the basis for environmental impact assessment in the General Plan EIR. The Background Report provides information that can be used by the public and decision-makers during the General Plan Update process.

## 1.4 Regional and Local Setting

Hanford is located 30 miles south of Fresno and 20 miles west of Visalia (see Figure 1-1). Hanford was incorporated in 1891, and is the county seat of Kings County. Hanford is located in the northern portion of Kings County at an elevation of 249 feet above sea level. The city has a total area of 16.6 square miles, all of which is land not covered by water. The terrain is level. The only natural watercourse is Mussel Slough, remnants of which still exist on the city's western edge. The Kings River is about 6.5 miles north of Hanford. The People's Ditch, an irrigation canal dug in the 1870s, traverses Hanford from north to south.

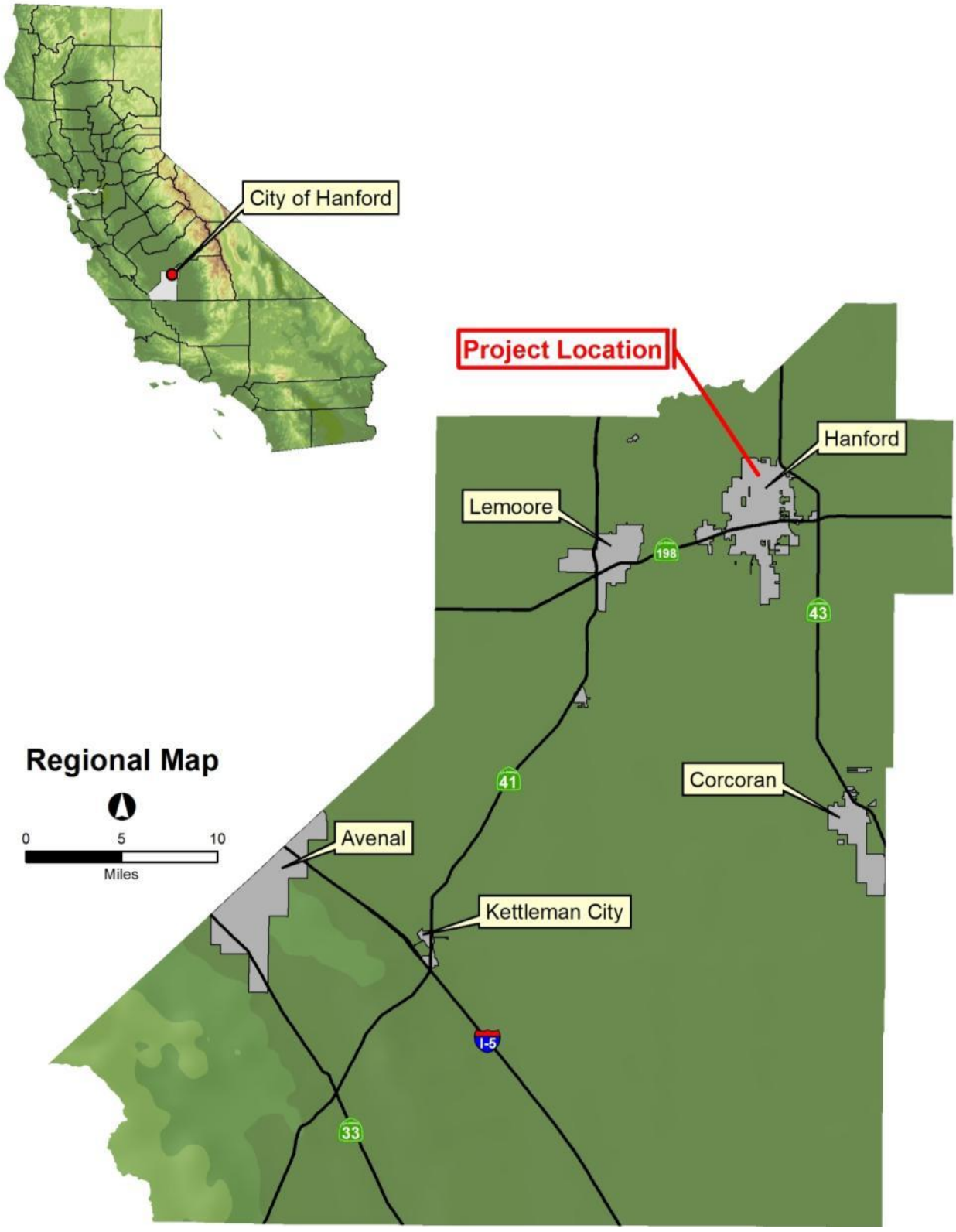
Kings County is one of eight counties that comprise the San Joaquin Valley, which is bounded on the west by the Coast Range Mountains, on the east by the Sierra Nevada Mountains, on the south by the Tehachapi Mountains, and on the north by the Sacramento River Delta area. The central and eastern portions of the county occupy the relatively flat Valley floor; while the southwestern portion of the county is characterized by the low hills of the Coast Ranges. Kings County is bordered by Fresno County to the north, Kern County to the south, Tulare County to the east, and Monterey County and San Luis Obispo County to the southwest.

The San Joaquin Valley has remained predominantly an agricultural area since the 1850s. It is considered one of the most important agricultural regions in the world due to its unique combination of soils and Mediterranean climate that can grow a wide variety of nuts, fruits, vegetables, and cotton. Kings County's farms generate over $1 billion a year in commercial crop production. Kings County is ranked as the 8th leading agricultural county in California and 25th in the nation, and is in the top 15 milk-producing counties in the nation. Kings County shares boundaries with the top four agricultural counties in the state, Fresno, Tulare, Monterey, and Kern, and is ranked lower than them only because of its smaller size.

There are four incorporated cities within Kings County. They are Avenal, Corcoran, Hanford, and Lemoore. These cities contain approximately 77% of the 2009 total county population estimate of 154,743 (CA Department of Finance, 2009). Hanford is the largest of the four cities, both in physical size and population. Armona, Home Garden, and Grangeville are unincorporated communities located near Hanford. The Naval Air Station Lemoore is located 16 miles west of Hanford. Santa Rosa Rancheria, the reservation of the Santa Rosa Indian Community and the site of the Tachi Palace Hotel & Casino, is located 8 miles southwest of Hanford.

Both State Highway 198 and State Route 43 intersect the City's limits. Highway 198 traverses Kings County and connects to State Routes 41, 43, and a network of other state highways and county roads. Hanford is located along State Route (SR) 198, which connects to Interstate 5 about 35 miles west and SR 99 about 13 miles to the east. Visalia is located 20 miles to the east along SR 198. SR 43 intersects SR 198 at Hanford's east edge and provides access to Selma to the north and Corcoran to the south.

*Figure 1-1: Regional Location*



Hanford is served by the Burlington Northern Santa Fe Railroad and the San Joaquin Valley Railroad, which operates on tracks owned by the Union Pacific Railroad. The nearest major commercial airport is Fresno Yosemite International Airport, located approximately 35 miles north.

The climate in Hanford during the winter months is dry and mild with the high temperature ranging from 55 to 65 degrees. Thick fog, known as Tule fog, is common during the winter months. Summer in Hanford is dry and hot with average daytime July and August temperatures hovering just below 100 degrees. Annual precipitation is approximately ten inches with a majority of the rain falling between November and April.

## 1.5 Organization of Background Report

The Background Report is divided into seven chapters, an appendix and a bibliography, and is organized as follows:

**Chapter 1: Introduction** - Chapter 1 introduces the General Plan Background Report and describes the plan area, the city limits, and the two spheres of influence that are associated with potential areas for expansion. It recognizes the purpose of a General Plan and its contents, the process of developing the general plan and the role of the Citizens Advisory Committee (CAC), and it identifies the issues and challenges to growth, development, and the quality of life concerns for 2013 and the next two decades that will need to be addressed.

**Chapter 2: Demographics & Economic Profile** - Chapter 2 discusses the historic population trends, current demographics, and population projections for Hanford. The demographics for Hanford include ethnic diversity, age, employment, households, and income trends. Market conditions and trends include taxable retail sales, retail leakage and supply, and supply and vacancy rates for commercial and industrial uses. This chapter also includes a discussion on the communities of Armona, Home Garden, and Grangeville and their interaction with Hanford.

**Chapter 3: Land Use & Community Design** – Chapter 3 provides current descriptions of both the built and the natural environment including downtown, residential neighborhoods near downtown, the regional and community shopping district at 12th Avenue and Lacey Boulevard, and employment areas such as Kings Industrial Park, the East Lacey corridor, and 4th and 5th Avenue corridors south of downtown. This chapter also includes a summary of the architectural character of both

residential and non-residential buildings in and around the downtown core and, in some instances, different areas of the city where residential developers have emulated the architectural character that exists in the older residential neighborhoods. State legislation and San Joaquin Valley Blueprint guidelines are addressed because they will affect how Hanford will develop in the next two decades.

**Chapter 4: Transportation & Circulation** – Chapter 4 includes a detailed discussion of Hanford's existing transportation network including roads and highways, public transportation, private transportation, bikeways and pedestrian access, aviation, and railroads. The Kings County Regional Transportation Plan identifies policy objectives and long range proposals (up to 2035 depending on funding) for the county's regional highway network. Also, discussed is the State's addendum to the 2003 General Plan Guidelines, the "2008 Complete Streets Act" and its policies for multi-modal streets and traffic calming measures.

**Chapter 5: Open Space, Conservation, and Recreation** - Chapter 5 includes information on soils, agricultural resources, mineral and energy resources, water resources, biological resources, cultural resources, and visual resources. Included with the section on agricultural resources is information on Williamson Act lands. This chapter also provides information on existing parks, trails, recreation, and open space in the city. The 2009 Hanford Parks, Recreation and Open Space Master Plan is addressed and includes the status of existing parks and a brief look at the survey of local citizens' desired parks and recreation amenities. State of California regulations are identified, including the Quimby Act which will be used to address Hanford's park needs and park design standards. Also included is a summary of art and culture in the city, including special events.

***General Plan Elements***

*The organization of the General Plan will have a similar organization of its elements as this Background Report.*

**Chapter 6: Public Facilities & Services** – Chapter 6 describes existing public services and utilities in Hanford. Public services include schools, library, fire and emergency, and law enforcement. The current status of law enforcement and fire protection are addressed, including standards for staffing and police and fire stations. Crime prevention programs are described. Utilities described in this chapter include potable water, storm sewer, sanitary sewer, electrical and gas availability, communications, and solid waste disposal.

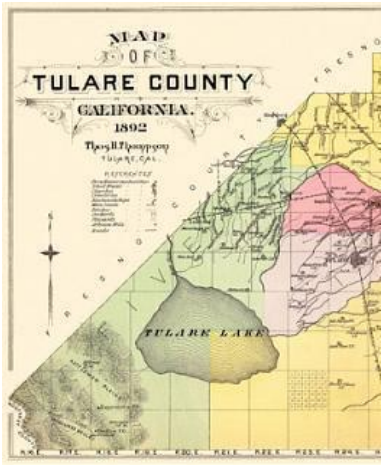
**Chapter 7: Health and Safety** – Chapter 7 describes potential natural and manmade hazards and the Hazard Mitigation Plan. Noise is addressed in a discussion on sources of noise in Hanford and noise as it relates to

health concerns. Public health, fitness, and environmental justice are also included in this chapter.

## 1.6 City of Hanford Overview

### 1.6.1 History

The Hanford area was inhabited by the Tachi Yokut Native Americans for several thousand years before the first European settlers arrived in the San Joaquin Valley in the 1820s. They occupied areas along watercourses, such as creeks, springs, and seep areas (sloughs), as well as flat ridges and terraces. Permanent villages were usually placed on an elevation above the seasonal flood levels. Surrounding areas were used for hunting and seed, acorn, and grass gathering.




Starting in the 1850s, settlers dug irrigation canals to bring water from the Kings River to area farmland. Tulare Lake was once the second largest freshwater lake in the United States, covering 570 acres. Portions of current day Hanford were once covered by the waters of Tulare Lake. By 1899 the lake was dry due to increased diversion of tributary waters for agricultural irrigation and municipal water uses, except for residual wetlands and occasional floods.

Hanford is named for James Madison Hanford, a railroad executive and paymaster for the Southern Pacific Railroad. After the main railroad line was completed from Sacramento to Los Angeles, a new line of railroad tracks was laid westward from the mainline at Goshen, with the original intention to connect to Hollister and San Francisco. A town plat was laid out on a sheep camp in the year 1877, and became the town of Hanford. In 1880, a dispute over land titles between settlers and the Southern Pacific Railroad resulted in a bloody gun battle on a farm 6 miles northwest of Hanford that left seven men dead. This infamous event became known as the Mussel Slough Tragedy.

Most of the commercial activity occurred along Sixth Street, with wooden buildings laid out facing the railroad tracks. Larger buildings were later built along Seventh Street. Hanford Central School was built on the current location of the Civic Auditorium in 1887 and was used until the 1920s. Two devastating fires—one on July 12, 1887, the other on June 19, 1891—resulted in a town meeting on June 20, 1891 for the purpose of incorporating Hanford as a city in order to provide for a firefighting system. The vote to incorporate took place on August 8,

1891, passing 127 to 47. The first City Hall was built on the east side of Douty Street, near Eighth Street. The building was demolished in 1940.

In 1890 the first vineyard was planted and in 1893 the first dairy farm was established. An electrical generating plant was built in 1891 by pioneering flour miller H.G. Lacey, bringing the first electric lights to the city. The Lacey Milling Company was still operating in Hanford in 2013.


When Kings County was created in 1893 from the western part of Tulare County, Hanford became its county seat. A second railroad was laid through Hanford in 1897, which today is the main north-south line of the Burlington Northern Santa Fe (BNSF) Railway through the San Joaquin Valley. The original east-west Southern Pacific Railroad branch line is now operated by the San Joaquin Valley Railroad.

Chinese immigrants, who originally came to California to build railroads, became farmers and settled a Chinatown east of downtown. In 1901, a restaurant called The Star opened on Sixth Street across from the Southern Pacific tracks. It is still doing business at the same location in 2013. Andrew Carnegie donated $12,500 to build the Carnegie Library in 1905.


In the early 1900s to 1920s, dairy farming flourished as Portuguese and Dutch dairy farmers immigrated to Hanford and San Joaquin Valley. By 1910, Hanford was the 4th largest city in the San Joaquin Valley, after Fresno, Stockton, and Bakersfield, having a population of 4,829. Saloons flourished in Hanford's early days despite an anti-saloon movement until the town voted to become "dry" in 1912.

The Civic Auditorium was built in 1923 and dedicated in 1924. The first publicly funded Veterans Memorial Building in California was built in Hanford in 1925. In 1929, the Fox Theater Palace opened. Each of these buildings is still in use in 2013.

From 1935 to 1940, the Dust Bowl and the Great Depression prompted the largest migration in American history. 200,000 people came to California, arriving from the Midwest and Great Plains States. One-third of them settled in the San Joaquin Valley.

During World War II, the massive labor shortage in the United States prompted President Roosevelt to institute a diplomatic agreement with Mexico to open the borders so that laborers could harvest crops. The Bracero Program allowed 4.5 million Mexicans to cross the border

between Mexico and the U.S. during the war years. Many came and settled in the Valley.

From 1958 to 2006 the Imperial Dynasty Room at the Chinese Pagoda Restaurant brought famous guests from all over the world to dine in Hanford. The guests included Ronald Reagan, Chiang Kai-shek, and Walt Disney. In 2011, China Alley was named one of America's 11 Most Endangered Historic Places by the National Registry.

Following the trend of many communities, the Board of Trustees became known as the Hanford City Council. In 1945, the first paid fire department was established and the City Planning Commission was created. The city continued to grow at a steady pace and in 1950 the city manager/city council form of government was established. During the following years, other advisory bodies were created to assist the City Council in its decisions on policies, laws, and procedures.

In 1975, the Hanford City Council, in cooperation with the downtown merchants, established the Central Parking and Improvement District and, as a result, doubled business license taxes in the downtown area. The proceeds are used to promote downtown business and fund infrastructure projects in the downtown.

In 1980, in order to encourage the restoration and rehabilitation of historic structures, the City Council, in cooperation with private community groups, established an Historic District. This step provided a vehicle for the private sector to receive special tax credits for the rehabilitation of historic structures.

In 1985 the City of Hanford entered and won the competition for the Helen Putnam Award for Excellence awarded by the League of California Cities. The theme of Hanford's entry was "Looking into the Past to Build the Future", and was based upon the revitalization of downtown Hanford. Hanford's efforts were also recognized in 1986 by American City and County magazine, which chose Hanford as one of ten cities in the United States to receive its prestigious Award of Merit.

Amtrak took over passenger rail service in 1972. Faced with loss of service due to federal budget cuts in 1985, the community organized a "Save Amtrak Day" with a musical band, Native American Dancers, and sign-waving demonstrators. The train service continued and Hanford's station became one of the busiest on the line.

In March 2000, the Hanford City Council, in cooperation with the downtown merchants, established a new organization called the

Hanford Main Street Program. The Main Street Program is an extension of the Downtown Revitalization Program, producing one of California's finest downtowns.

### 1.6.2 City Limits

There are 16.6 square miles of land within the city limits of Hanford. The city limits did not grow beyond the original 2-square mile plat until 1948 (Figure 1-2). Since then, a series of annexations have expanded the size of Hanford's jurisdiction. In a number of cases, land was developed while still in the county jurisdiction and then annexed later. A few of these developments were not annexed as Hanford grew around them. These have become county islands. There are eight county islands in 2013 that have a combined area of approximately 440acres.

### 1.6.3 Sphere of Influence

State law encourages cities to look beyond their borders during the General Plan Update process, and to consider a planning area that extends beyond the current municipal limits. This area, defined as the "probable ultimate physical boundaries and service area of the given jurisdiction," is known as the Sphere of Influence (SOI). In all cases, the SOI is determined by the County's Local Agency Formation Commission (LAFCO).

The Kings County LAFCO is responsible for establishing a Sphere of Influence for the City of Hanford. LAFCO has adopted two Spheres of Influence boundaries: a Primary and a Secondary Sphere of Influence (see Figure 1-3).

The Primary SOI is defined as "the probable physical boundaries and service area of a local agency." Hanford's Primary Sphere of Influence (SOI) represents an assumption of the city's probable future physical boundaries and service. Within this boundary, the City may apply to LAFCO to annex contiguous territory in a logical and orderly manner, and LAFCO may approve after considering certain factors.

The Secondary SOI serves as an identification of the "areas of interest" between local agencies. LAFCO recommends that notification should be conducted between Hanford and Kings County for development projects within the Secondary SOI in order to facilitate better coordination of services, infrastructure, and a comprehensive environmental review.

***Figure 1–2: Historic Map of Hanford's Original 2-mile Square Plat***

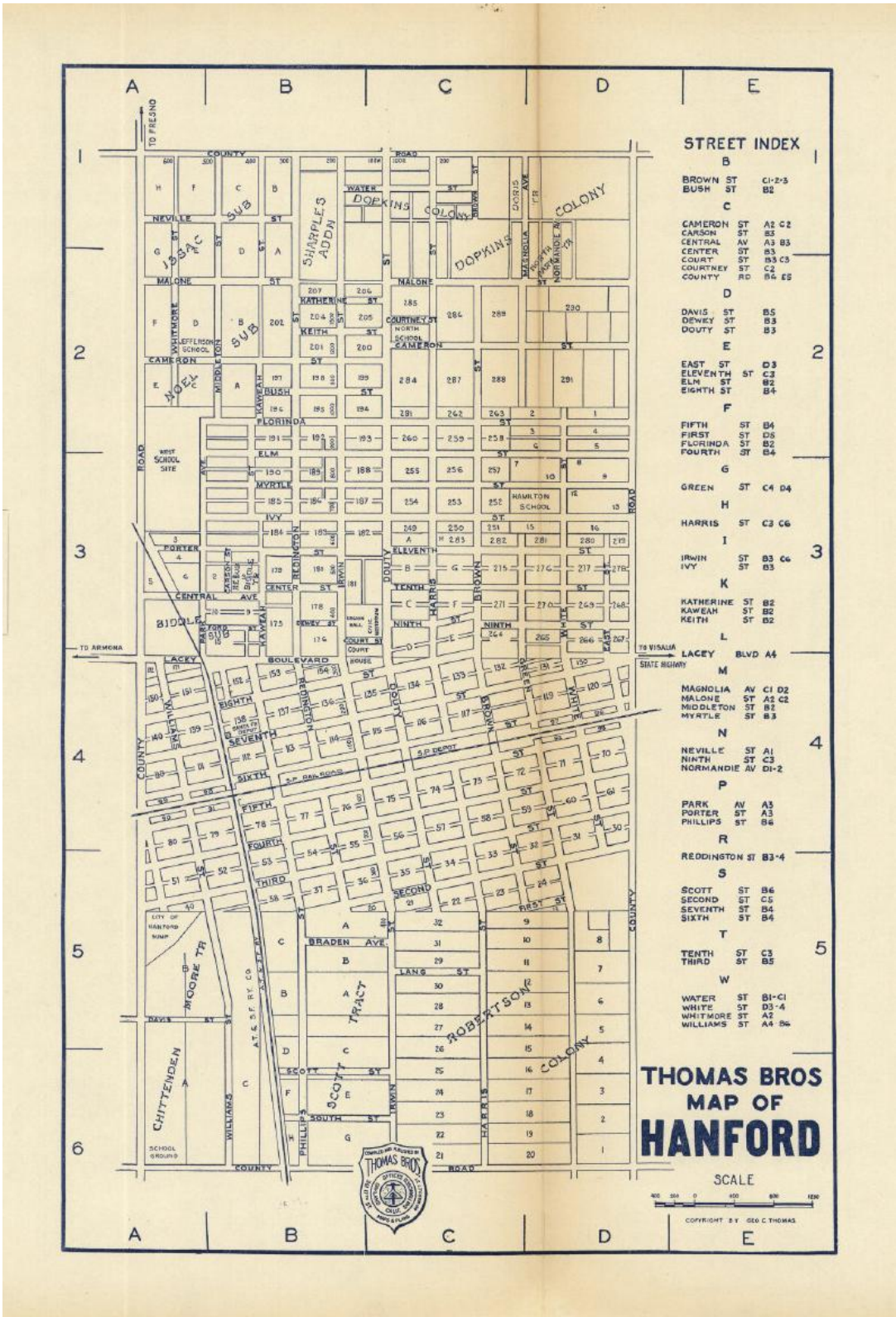
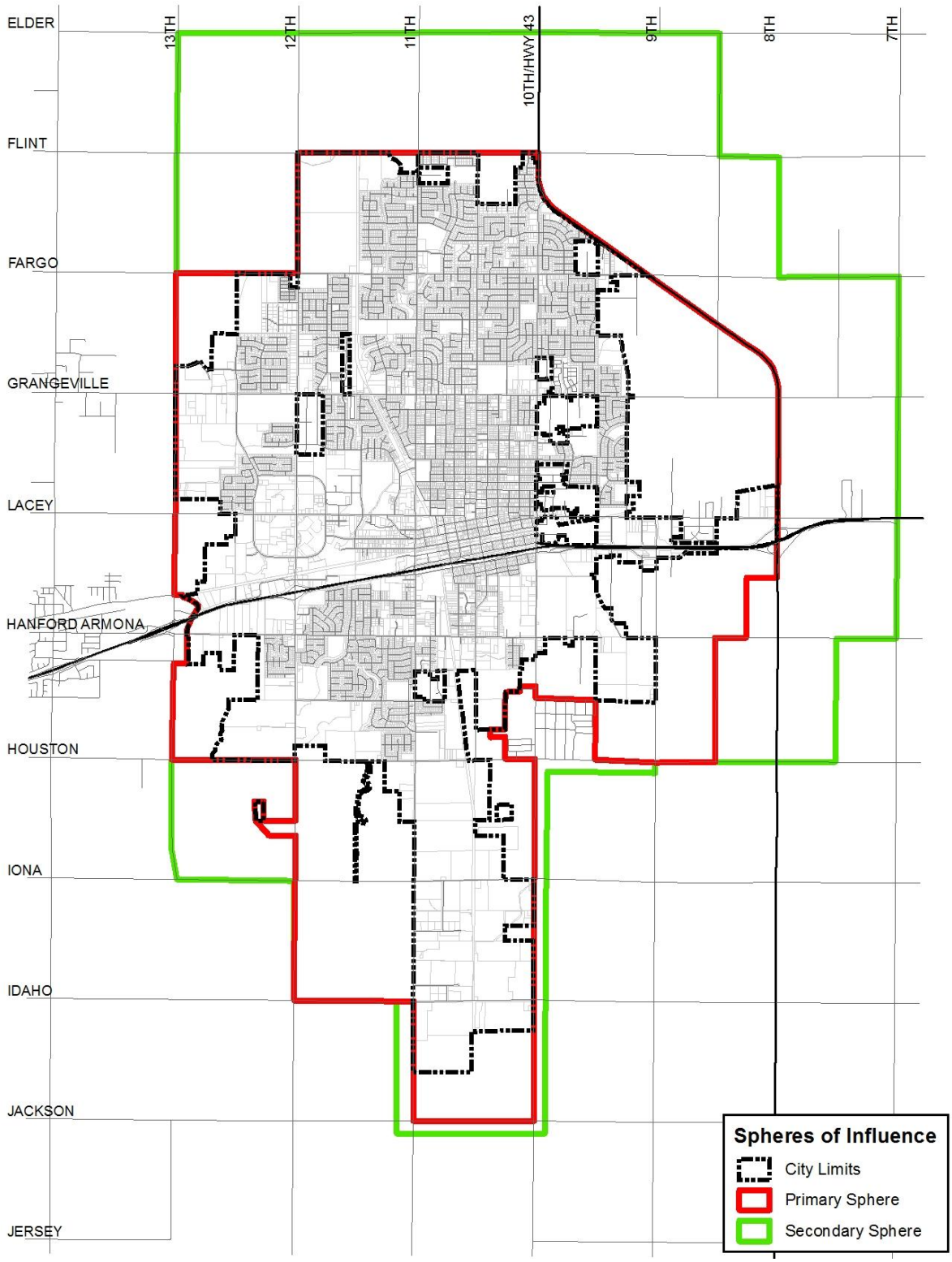


*Figure 1–3: City Limits and Spheres of Influence*



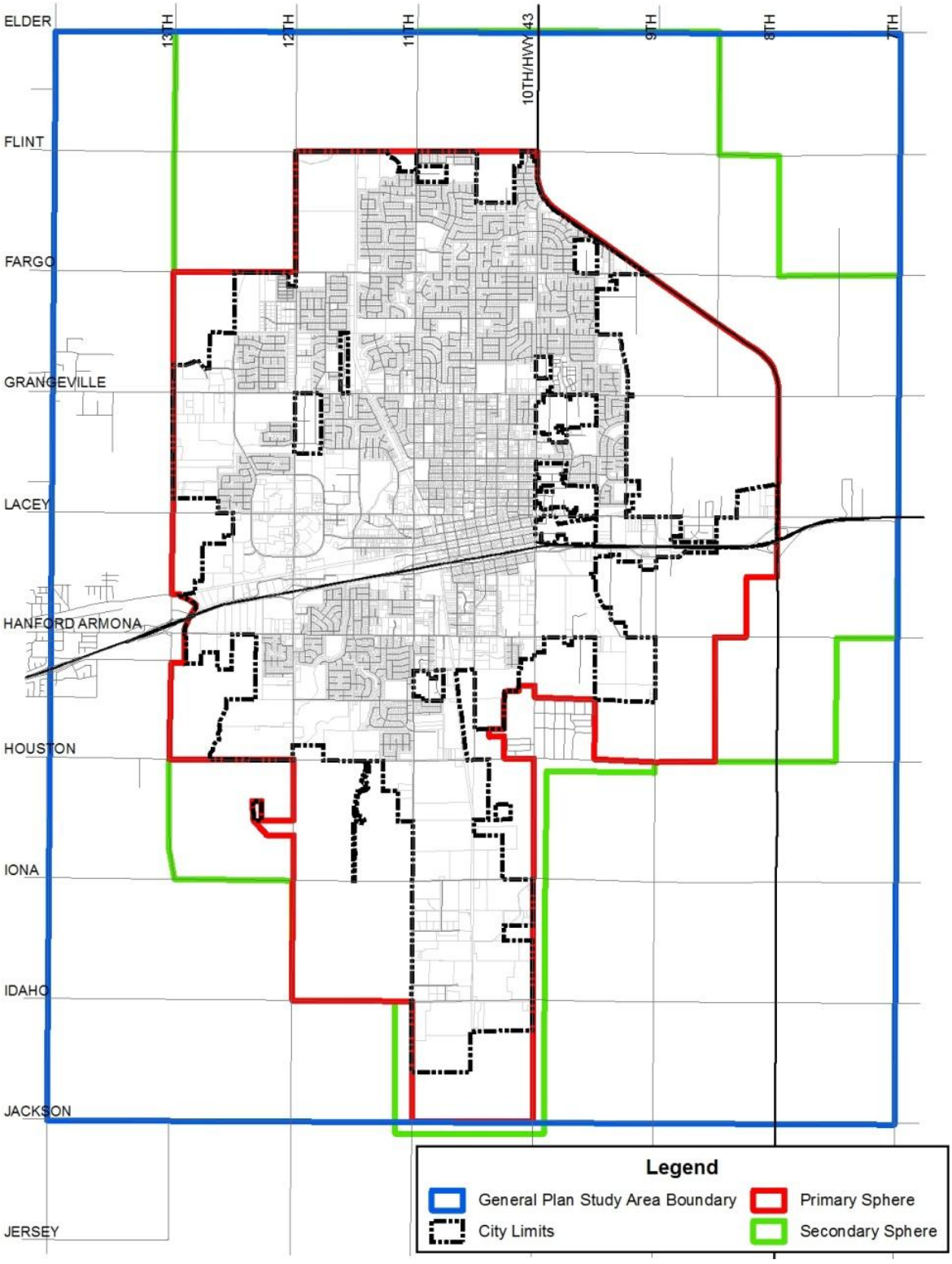
The Primary SOI is 16,760 acres in area, which includes the existing city limits as well as adjacent areas that have been deemed as appropriate areas for orderly expansion by LAFCO. The territory outside of the city limits but within the Primary SOI totals 5,825 acres, with a large portion of available land for expansion (1,370 acres) being located to the west of Highway 43. Land available for future growth (1,280 acres) is also located southwest of the city, east of 11th Avenue, and south Houston Avenue, directly adjacent to the southern, industrial zone area of Hanford. The northwestern portion of the Primary SOI is coterminous with the existing city limits, which means that before growth could occur here the Primary SOI would need to be expanded before the land could be annexed.

The Secondary SOI is 8,898 acres in area, which includes territory outside of the Primary SOI and city limits of Hanford. The Secondary Sphere is coterminous with or in close proximity to the Primary SOI and the city limits in the southern and western portions of Hanford (along 10th Avenue/Houston Avenue and 13th Avenue, respectively). As mandated by State Law, LAFCO is required to conduct a review of the SOIs every five years. The last review was conducted in September 2007. The General Plan Update could provide the basis for Kings County LAFCO to prepare subsequent revisions to the SOIs.

### 1.6.4 Planning Area

For the purposes of this General Plan Update, the Planning Area will be the area that will be studied during this process is defined as the 63 square miles that are bounded by Elder Avenue on the north, 7th Avenue on the east, Jackson Avenue on the south, and 14th Avenue on the west. This Planning Area is obviously larger than the area that will ultimately be needed for growth over the life of the General Plan. Its size has been determined to give the decision makers that most flexibility in making determinations about where and how it should grow. The presumption is that land along the edges of the Planning Area will likely be designated for agricultural use, and that the potential land use conflicts between agricultural and urban uses would occur inside the Planning Area.

*Fig 1-4: General Plan Update Planning Area*



***Planning Area Boundary***

*The Planning Area is not to be assumed to be completely planned for development in the General Plan Update. This is only meant to be the area that is studied for possible development.*

The Planning Area for Hanford includes the area inside both of the Spheres of Influence and the City limit boundaries. In addition, the Planning Area includes the unincorporated areas of Armona, Grangeville, and Home Garden. Their proximity to Hanford necessitates a review of how Hanford's policies may affect these communities and vice versa.

Overall, this area provides Hanford with an area large enough to establish its direction and pattern of future growth through the year 2035. It will also allow the City to analyze long-range infrastructure needs throughout the Planning Area. All analyses will be based upon only the area within the Planning Area.

### 1.6.5 Kings County

Hanford is located in the northern portion of Kings County. The County of Kings is located in the south-central portion of the San Joaquin Valley and is comprised of 1,391 square miles. Kings County is one of eight counties that comprise the San Joaquin Valley, which is bounded on the west by the Coastal Range; the Sierra Nevada Mountain range to the east; the Tehachapi Mountains to the south; and Sacramento to the north. The central and eastern portions of the county occupy the relatively flat valley floor; the southwestern portion is characterized by the low hills and intervening valleys of the Kettleman Hills. Within the San Joaquin Valley, Kings County is bordered by Fresno County to the north; Kern County to the south; Tulare County to the east; and Monterey County and San Luis Obispo County to the southwest.

The San Joaquin Valley supports extensive farmland practices, resulting in Kings County remaining predominantly an agricultural area since its first settlement in the 1850s. It is considered one of the most important agricultural regions in the world due to its unique combination of soils and Mediterranean climate that can grow a wide variety of nuts, fruits, vegetables, and cotton. Kings County's farm land area is generally level irrigated farmland that averages well over $1 billion a year in commercial crop production. Kings County is ranked as the 8th leading agricultural county in California (25th in the nation), and is in the top 15 milk producing counties in the nation. Kings County shares boundaries with the top four agricultural counties in the state: Fresno, Tulare, Monterey, and Kern.

There are four incorporated cities within Kings County, which contain approximately 77% of the total county population (2009) estimate of 154,743 (California Department of Finance, 2009). The four cities are Avenal, Corcoran, Hanford, and Lemoore. Hanford is the largest of the four cities in population. The California Department of Finance estimated that the city's population was 55,479 as of January 1, 2013. Several unincorporated communities are also located within the county, as well as the Naval Air Station (NAS) Lemoore and Santa Rosa Rancheria. The NAS is located 16 miles west and the Santa Rosa Rancheria, home to the Tachi Palace Casino and Hotel, is located 8 miles southwest of Hanford. Within unincorporated areas, most of the population lives in the communities of Armona, Home Garden, Kettleman City, and Stratford.

## 1.7 Important Issues and Challenges in 2013

The General Plan Update will need to conform to the new legislation, general plan guidelines, and court cases that have have emerged since 2002. In addition to these general issues, several specific issues have come to the forefront since the City's 2002 General Plan Update was adopted. These issues, as well as on-going desires to conserve surrounding agricultural lands, preserve China Alley and other important historic areas, promote local businesses, and provide land and infrastructure for projected population increases need be addressed in the General Plan Update.

### 1.7.1 High Speed Rail and its Impact on Future City Growth

Many Hanford and Kings County residents are opposed to the proposed High Speed Rail project. This opposition often includes a high level of emotion due to the potential impacts the project could have, not only on the surrounding agricultural areas but also potentially on Hanford's downtown, thoroughfares, and unincorporated lands.

That being said, if High Speed Rail proceeds, the Hanford General Plan Update will need to be able to identify, respond to, and to the extent possible, minimize the negative impacts of that project on the city's growth and development patterns, local economy, fiscal impacts, and the city's long-term infrastructure needs. If High Speed Rail happens, there will be real impacts, such as noise, traffic, reorganization of transit, and growth inducement, which will be felt at a personal, a city government, and a countywide level.

### 1.7.2 Integration of Planning with Climate Change, Regional and Local Transportation and Land Use

Climate change regulations require the City of Hanford to take action to reduce emissions under its jurisdiction and influence. The countywide Climate Action Plan, a separate action currently underway through Kings County Association of Governments (KCAG). The policies will identify a range of potential implementation measures that the City can choose from. The General Plan Update will also need to link to the Countywide Regional Transportation Plan (RTP) and the San Joaquin County Blueprint, incorporating applicable policies and strategies. This strategy of integrating regional planning documents helps Hanford identify land use, transportation, and related policy measures and

investments that could reduce greenhouse gases from passenger cars and light-duty trucks as part of the development of a Sustainable Communities Strategy in compliance with Senate Bill 375.

### 1.7.3 Life after Redevelopment

The termination of redevelopment agencies has eliminated tax increment financing (TIF) in California. As a result, Hanford has lost a key, 'leverageable' revenue source for economic development projects. TIF enabled public agencies to freeze property and other tax revenues, so that the additional increment becomes available to match or enhance private sector equity/debt investment. Without this tool, it will be more difficult to assist public-private projects and pay for infrastructure improvements. Other financing opportunities are available that will help implement some of the general plan goals and policies.

### 1.7.4 Integrating Transportation and Land Use

In order to foster balanced, sensible growth, it is critical that land use and transportation planning proceed hand-in-hand. Hanford's General Plan should define a comprehensive transportation network, emphasizing connectivity, logical spacing, multimodal service, and "right-sizing" of roads to match the travel demand generated by Hanford's growth rate, and new homes and businesses in the city. Where in the past, land use and circulation were often considered separately, the Hanford General Plan Update can exemplify the benefits of considering them together.

### 1.7.5 Urban Growth's Impact on Agricultural Land

There is a strong desire to maintain Hanford as its own distinct community with clearly defined edges surrounded by productive agricultural land. The City is surrounded by irreplaceable farm land on all sides, much of it encumbered by Williamson Act contracts that prohibit development.

### 1.7.6 Hanford's Downtown and Downtown East Area

Hanford is fortunate to have a Downtown that is cherished by the community. Previous planning efforts to maintain and enhance its prominence in the City can be reinforced and expanded upon by the General Plan Update.

### 1.7.7 Eastside Shopping and Entertainment Center

The City currently is reviewing a developer-initiated proposal to build a 500,000 sq.ft. shopping center at the northwest corner of Highways 198 and 43. The development is proposed in four phases and would be the first major retail destination on the east side of Hanford. The decision on the developer's proposal will likely be made during the General Plan Update process. If the shopping center project is approved, the General Plan Update will need to determine if there should be even more commercial land planned around the shopping center, or alternatively if the land should be planned for some other compatible use. It will also need to analyze circulation and transportation that can connect this partially developed area with the rest of the city.

### 1.7.8 Planning for Housing in a 21st Century Central Valley

Recent State laws like Senate Bill 375, California's Sustainable Communities and Climate Protection Act, and regional planning efforts like the San Joaquin Valley Blueprint, are pushing Central Valley cities to adopt growth and transportation plans that expand housing options. Preference surveys[1] conducted as recently as 2012, along with economic and financial trends, indicate a growing demand for apartments, townhomes, other attached products, and small lot single family homes. The report titled "A Home for Everyone" prepared by the Council of Infill Builders in January 2013 finds that all new nonresidential growth and all new attached residential demand could be accommodated through the infill and redevelopment of existing low-density areas, and recommends that Valley leaders plan new communities with mixed uses that are well connected to established city centers.

### 1.7.9 A Quality Environment – Enhancing Open Space, Mitigating Noise, and Planning for Safety

Mixing land uses and increasing densities will require that the City reevaluate its park, trail, and open space needs. Hanford has almost no natural open space in its boundaries. Even so, opportunities for improving green space and recreational needs are abundant.

Noise can negatively affect human health by causing stress, interrupted sleep, and disrupting daily activities. Land uses such as airports, transportation routes, and industrial activities have a propensity to

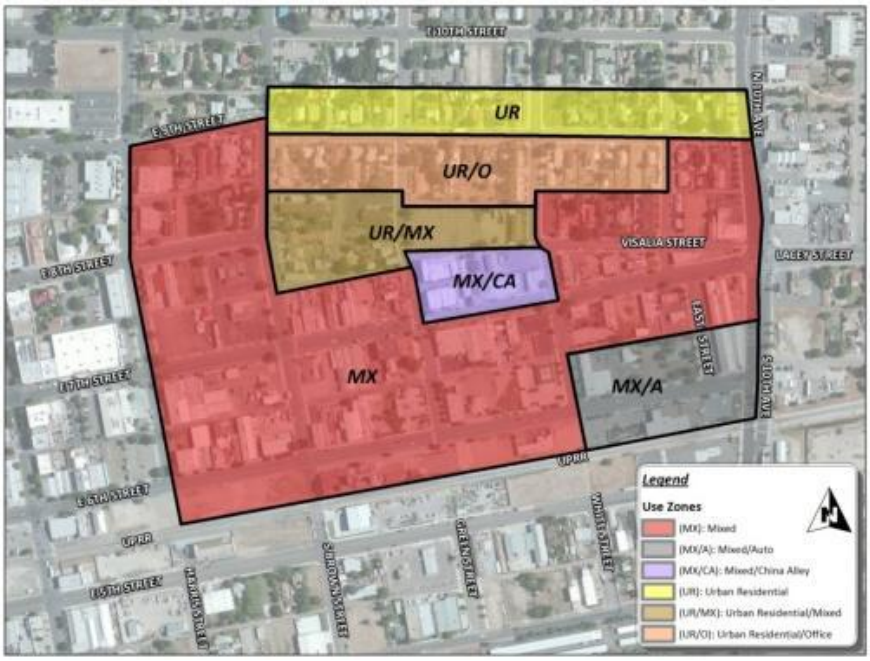
[1] A 2012 study prepared for the Fresno Council of Governments on behalf all of the Valley's regional agencies by The Concord Group.

generate excessive noise. Hanford has several of these key noise generating land use features that may significantly impact the general Plan update, including the airport, the Amtrak main line, Highway 198, and possibly California High Speed Rail.

The primary purpose of local government is to promote the health and welfare of its citizens. Good planning and sound policies can anticipate and then mitigate or avoid potential natural and man-made hazards.

### 1.7.10 Streamlining City Regulations

The policies put into the General Plan Update will set the foundation for revising the Zoning and Subdivision Ordinance. The modification of the Zoning Ordinance will occur as a public process after adoption of the General Plan. These updates will result in extensive changes in the pattern of future development. A primary goal is that the updated Ordinances will be more understandable, even to people with limited or no experience with zoning, and will streamline the process of getting projects approved. The updated Ordinances should encourage and support the new development and businesses that Hanford wants within its city limits. An example of a project that was designed to provide a "red carpet, no red tape" approach to development projects is the recently adopted Downtown East Precise Plan (below).



# CHAPTER 2

# DEMOGRAPHICS & ECONOMIC PROFILE

# CHAPTER 2 DEMOGRAPHICS & ECONOMIC PROFILE

## 2.1 Introduction

This chapter reviews historical population trends, current demographics, and population projections for Hanford. To determine the goals and policies set forth in each of the General Plan elements, it is necessary to understand population growth trends, age structure, as well as race and ethnic diversity.

Land use allocation of the city depends on its future residential, commercial, public facilities, and open space. Residential land use allocation requires knowledge of population and income trends to determine how much land should be reserved for future residential development and what type of developments will be necessary to serve the demographic needs. Commercial land use needs are based on employment trends and population growth.

Both public facilities and open space requirements will vary according to current and projected population numbers, as well as the distribution of residential and commercial development within the city. By projecting the land use needs for future populations in the city, it is possible to properly plan for future transportation needs and develop policies to efficiently manage and conserve resources.

This chapter will serve as a foundation for the other chapters of the Background Report and highlights how demographics will serve a vital role in developing goals, objectives, policies, and programs tailored to the unique socioeconomic characteristics of Hanford. It is essential for the General Plan to remain consistent across all elements with a central focus on addressing the specific needs of the current and future trends of Hanford.

The chapter is divided into the following sections:

- Hanford in a Regional Context
- Growth Trends
- Age Distribution
- Household Type and Composition
- Ethnicity and Race Employment

## 2.2 Hanford in a Regional Context

### 2.2.1 Past Population and Regional Housing Trends

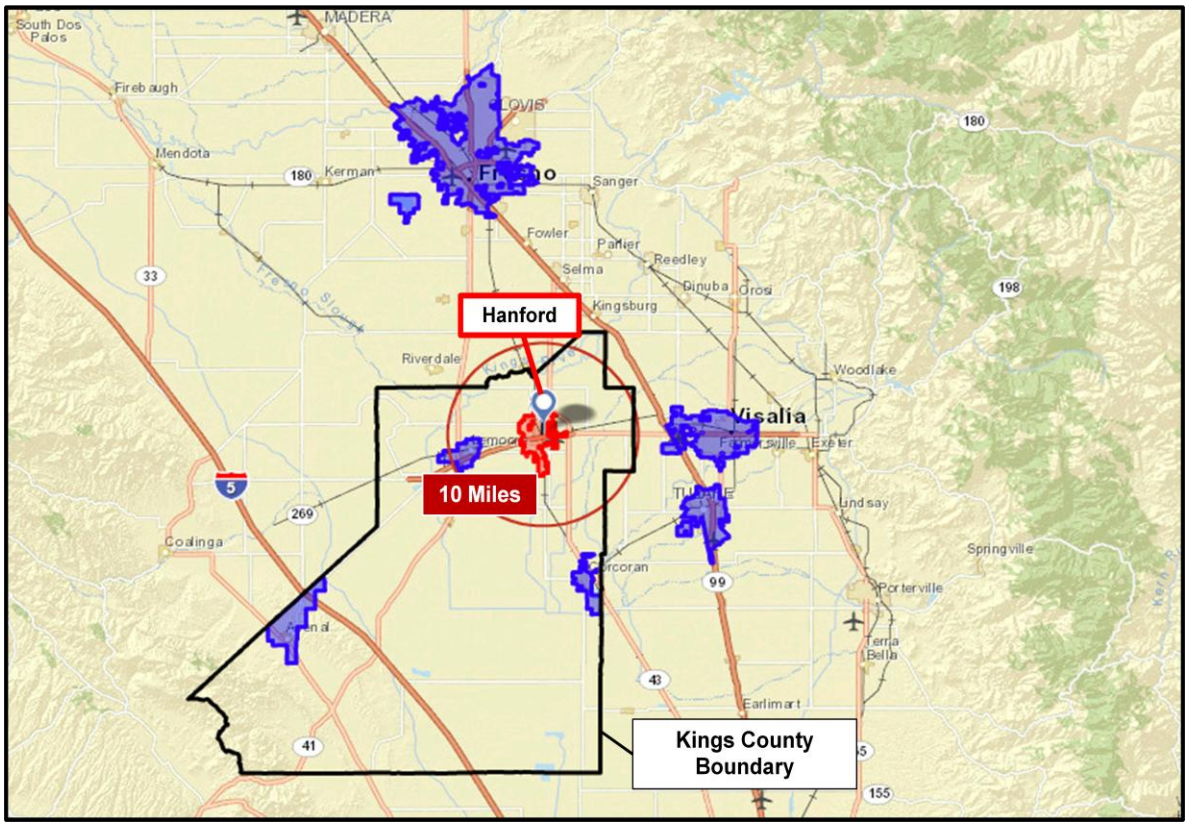
Population growth in Kings County has steadily increased, sometimes more slowly, sometimes more quickly. Between 2000 and 2013, 22,546 people were added to the County population according to the United States Census Bureau, bringing the total County population to 152,007 as of January 2013. This represents an average annual growth rate of 1.40% over that timeframe. Hanford experienced the greatest increase in population compared to the other cities in the county during that timeframe.

According to the California Association of Realtors, the average price for a home sold within Hanford increased by approximately 4.3%, rising from $115,000 to $122,000 between 2012 and 2013. This could be attributed to the 1.1% increase in population during that timeframe and the real estate market recovery, increasing the demand for home purchases. Comparably, between 2010 and 2012, owner-occupied households in Kings County increased from 49% to 54%. For that reason, the County's renter-occupied households decreased from 51% to 46%. Figure 2-1 shows Hanford's location as it relates geographically to its surrounding neighboring cities and county as a whole.

### 2.2.2 City of Hanford

Not only is Hanford the fastest growing city compared to the other incorporated cities in Kings County, it is also the only city within the county that has increased in population each year from 2000 to 2013, with an average compounded increase of 2.28% each year (Kings County Department of Finance).

*Figure 2-1: Hanford and Surrounding Cities*

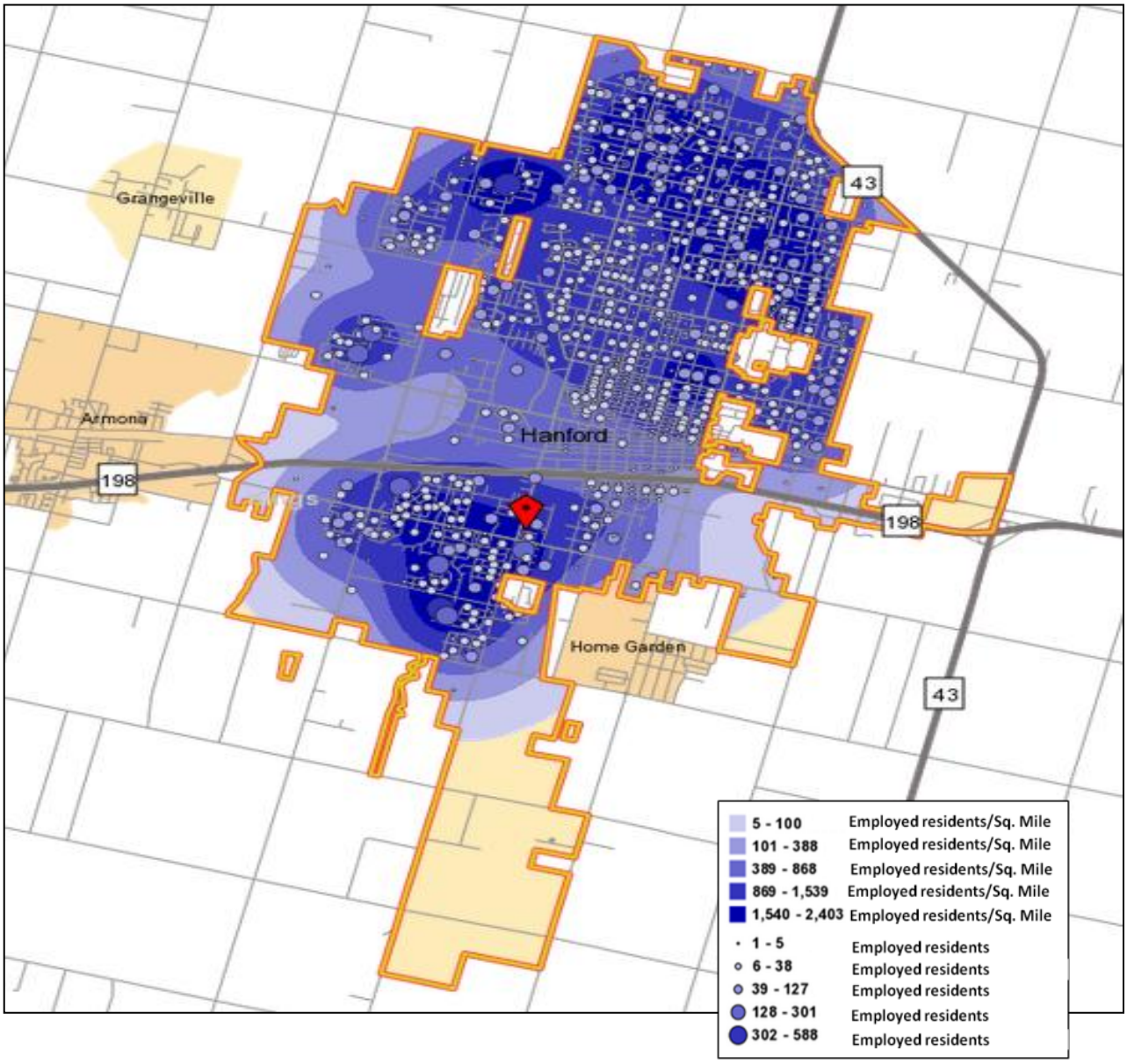



As seen in Figure 2-2, residents are concentrated primarily to the north and south of Downtown Hanford, with the employment areas primarily concentrated in the Downtown core, 12th Avenue, and the industrial park.

### 2.2.3 Kings County/Neighboring Communities

**Kings County.** Kings County remains a predominantly agricultural-based county, which ranked 8th in California in 2007 for agricultural product value. Of the county's 1,391 square miles, approximately 90% of all land is devoted to agricultural uses. In 2008, the gross value of agricultural crops and products was $1.76 billion and represented the major component of Kings County's economy. Kings County produced 39 crops or products that each grossed over one million dollars per year. (California Department of Food and Agriculture 2007).

***Figure 2-2: Resident Concentration within Hanford***




Kings County ranks as the seventh fastest-growing county in population in California. Since 1980, Kings County's population has increased at an annual average growth rate of 3.15%. However, much of the increase is inflated due to the opening of Avenal State Prison (1987), Corcoran State Prison I and II (1988), the California Substance Abuse Treatment Facility (1997), and expansion of Naval Air Station Lemoore. Discounting military and correctional institutions, countywide population still increased at a rate of approximately 2.0% annually since 1980.

**Armona.** The community of Armona is located approximately 3.5 miles southwest of Hanford. According to the 2010 Census, Armona has a population of 4,156 residents, 961 households, and 786 families residing in the community. The racial makeup is 26.5% White, 2.0% African American, 0.6% Native American, 2.0% Asian, 0.2% Pacific Islander, 0.02% from other races, and 1.6% from two or more races. 67% of the community is identified as Hispanic. The average household size was 3.61 and the average family size was 3.88. The median age of residents was 28.7. The median income for a household in Armona was $42,122. About 15.7% of families and 22.3% of the population were considered below the federal poverty line.

**Home Garden.** The community of Home Garden is located approximately 1.5 miles southeast of Hanford. According to the 2010 Census, Home Garden has a population of 1,761 residents, 437 households, and 376 family households residing in the community. The racial makeup is 37.0% White, 12.5% African American, 3.6% Native American, 2.8% Asian, 0.5% Pacific Islander, and 43.6% Hispanic. The median income for a household in Home Garden was $38,125, and the median income for a family was $36,488. About 33.0% of families and 34.6% of the population were considered below the federal poverty line.

**Grangeville.** The community of Grangeville is located approximately 3.5 miles northwest of Hanford. According to the 2010 Census, Grangeville has a population of 469 residents, 162 households, and 126 family households residing in the community. The racial makeup is 20.3% White, 30.9% Hispanic and 48.8% of another race. The average household size was 2.90 and the average family size was 3.37. In 2011, the median income for a household in Grangeville was $46,979, and the median income for a family was $52,989. About 18.0% of families and 14.4% of the population were considered below the federal poverty line.

## 2.3 Growth Trends

### 2.3.1 Population Trends

In 2013, Hanford had 55,860 residents, which was 36% of the total population of Kings County. Comparatively, back in 2000, Hanford had 41,687 residents, which was 32% of the total population of Kings County. Hanford is a predominantly urban community, and is growing at a steady rate. Between 2000 and 2013, the city grew by 32.4%, which is approximately 2.28% per year and 1.04% faster than the county rate (Table 2-1).

***Table 2-1: Population Trends 2000-2013***

| Population Trends of Hanford vs. Kings County | | | | |
|---|---|---|---|---|
| | 2000 | 2013 | Pecent Change between 2000-2013 | Average Annual Change |
| City of Hanford | 41,687 | 55,200 | 32.40% | 2.28% |
| Kings County | 129,461 | 152,007 | 17.40& | 1.24% |

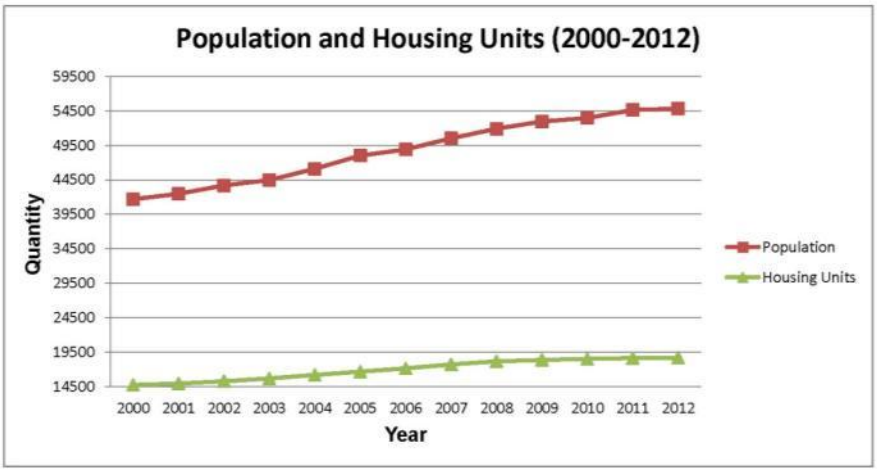
The total number of households in 2013 is 17,867 and is expected to increase to 18,284 by 2018, resulting in an increase of 421 households. By 2018, owner households are projected to increase citywide by 4.2% while renter households are projected to slightly decrease citywide by 0.2% (Table 2-2).

***Table 2-2: Household Trends 2000-2013***

| Households | 2013 | 2018 | Net | Percent |
|---|---|---|---|---|
| City of Hanford | 17,867 | 18,284 | 417 | 2.3% |
| *Owner* | *10,212* | *10,642* | *430* | *4.2%* |
| *Renter* | *7,655* | *7,642* | *(13)* | *(0.2%)* |
| | | | | |
| W/in 10 miles of 7th St. & Douty St. | 33,110 | 33,804 | 694 | 2.0% |
| *Owner* | *18,612* | *19,381* | *769* | *4.1%* |
| *Renter* | *14,498* | *14,423* | *(75)* | *(0.5%)* |

The Hanford growth rate in housing units between 2000 and 2012 was minimal compared to the growth rate in population. There were 14,722 housing units in the year 2000, 16,648 in the year 2005, and 18,695 households in 2012 (Figure 2-3). As seen in Figure 2-3, from 2007-2012, although the number of housing units only increased marginally, the population number increased at a faster rate, going from 50,534 to 54,860 residents. This means that the average persons per household increased as well. Between 2007 and 2012, the average persons per household increased from 2.96 to 3.05. The minimal increase in housing units could be attributed to fewer houses being built during the years following the real estate downturn.

*Figure 2-3: Hanford Population and Housing Units (2000-2012)*




### 2.3.2 New Residential Building Activity

As shown in Table 2-3, Kings County building activity shows that for single-family homes, 1,324 permits were issued, or 80% of the total new residential permits between 2007 and 2012. The permits issued for new single-family units throughout the county decreased from 437 permits in 2007 to 104 in 2011, and then increased to 206 permits in 2012.

A total of 314 multi-family permits were issued between 2007 and 2012, which constituted a total of 20% of all residential building permits during those five years. The number of multi-family permits issued dramatically increased between 2007 and 2008 from 25 to 137 permits. No permits were issued in 2009, and from 2010 to 2012 the number of permits issued significantly declined down to 80.

*Table 2-3: Kings County Residential Building Activity (2007-2012)*

| YEAR | SINGLE FAMILY | % OF TOTAL | MULTI FAMILY | % OF TOTAL | TOTAL |
|---|---|---|---|---|---|
| 2007 | 437 | 94.5% | 25 | 5.5% | 462 |
| 2008 | 236 | 63.2% | 137 | 36.8% | 373 |
| 2009 | 194 | 100% | 0 | 0% | 194 |
| 2010 | 147 | 67% | 72 | 33% | 219 |
| 2011 | 104 | 56% | 80 | 44% | 184 |
| 2012 | 206 | 100% | 0 | 0% | 206 |
| TOTAL | 1,324 | 80% | 314 | 20% | 1,638 |

## 2.4 Age Distribution

As of 2013, Hanford and Kings County have a similar median age of 31.2 and 31.3, respectively. Within Hanford, 40% of the population is between the ages of 25 and 54. As the population within Hanford becomes older, it will be important to address the unique needs of an aging population and provide necessary assisted-living housing and transportation options, as well as plan for access to health and medical services. Figure 2-4 illustrates the percent population by age for both Hanford and Kings County in 2013.

The 2012 Population Pyramid (Figure 2-5) illustrates the distribution of ages by gender within Hanford. Approximately 50.3% of the total population within the city consists of males, while 49.7% are females. As the younger cohorts age, it will be increasingly important to ensure adequate education and employment opportunities to ensure there is an adequate labor market with a capable, increasing workforce to replace the aging population as they enter into retirement.

*Figure 2-4: City Population by Age Bracket (2013)*

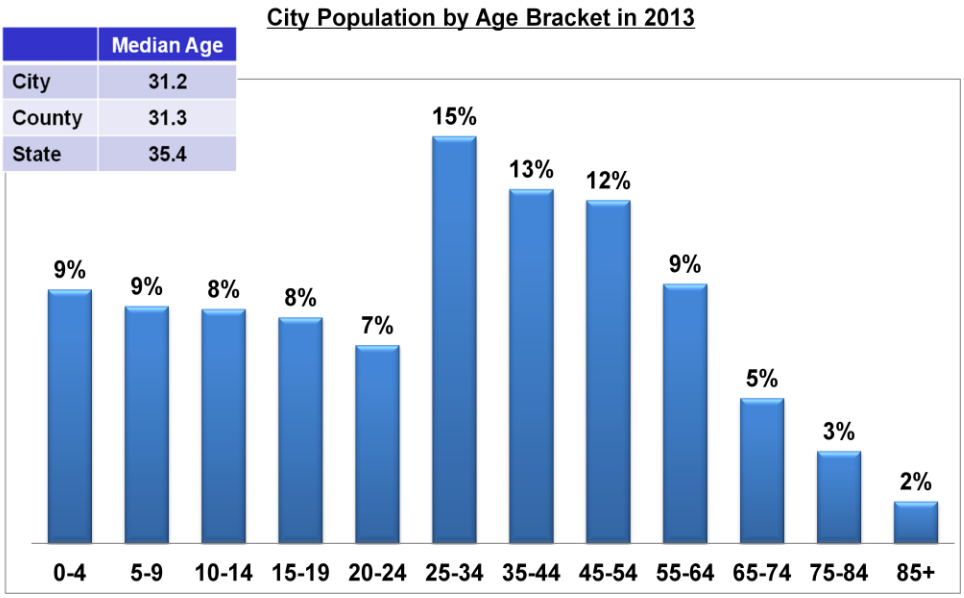
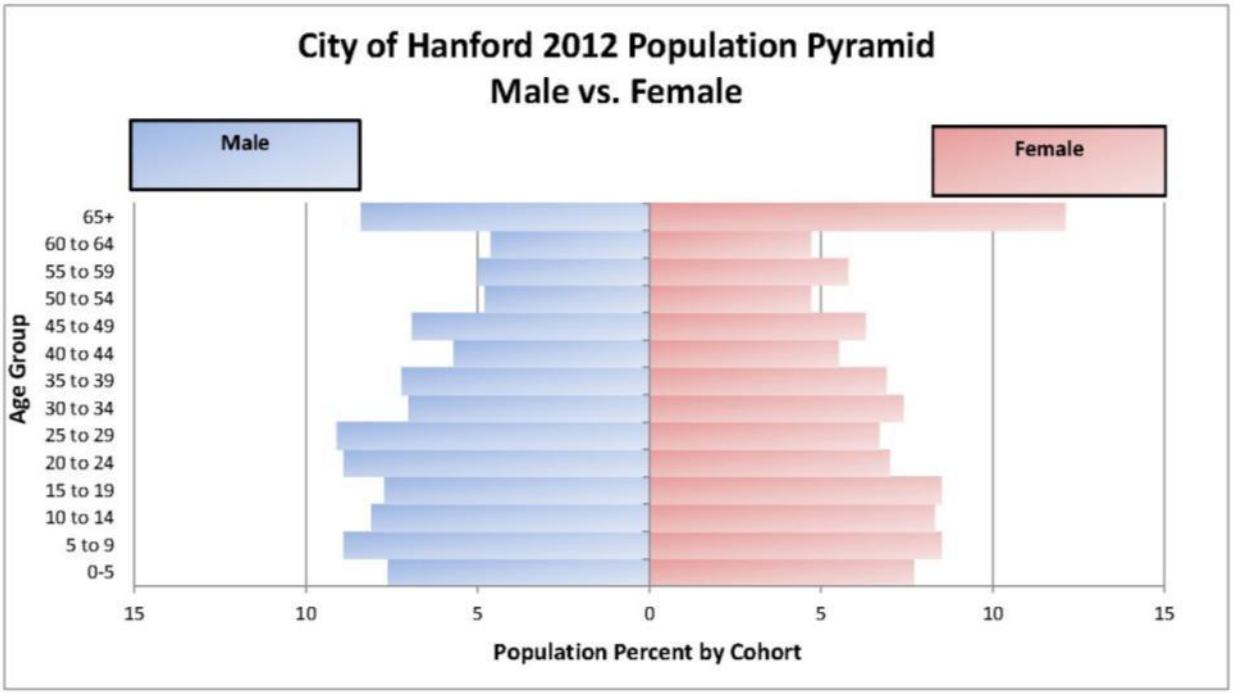



*Figure 2-5: Population Pyramid (2012)*



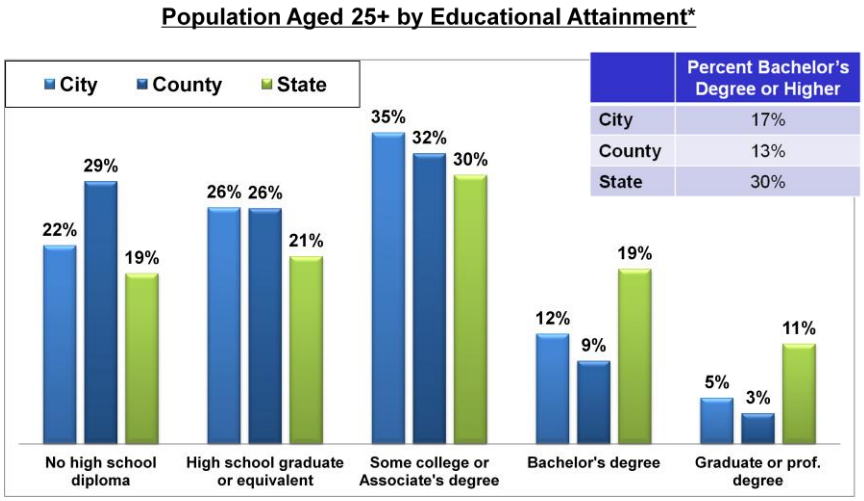

Among Hanford residents 15 years of age and older, approximately 51% of males and 50% of females are married as of 2012 (Table 2-4). Approximately 8.9% more females than males have never been married and 5.4% more females than males are widowed.

*Table 2-4: Marital Status of Population 15 years and Older*

| Population 15 years and over | Males | Females |
|---|---|---|
| Never married | 35.8 | 26.9 |
| Now married, except separated | 50.9 | 50.2 |
| Separated | 2.8 | 3.0 |
| Widowed | 2.3 | 7.7 |
| Divorced | 8.2 | 12.2 |

Of the population aged 25 and up, 35% of Hanford's population has some college or an Associate's degree, which is approximately 9.4% higher than the county equivalent and 16.6% higher than the State. 12% of Hanford has a Bachelor's degree while only 9% of the county population has a Bachelor's degree. 22% of Hanford residents have no high school diploma, while 5% have a Graduate or professional degree (Figure 2-6).

*Figure 2-6: Population Aged 25+ by Educational Attainment*




## 2.5 Household Type and Composition

### 2.5.1 Housing Types

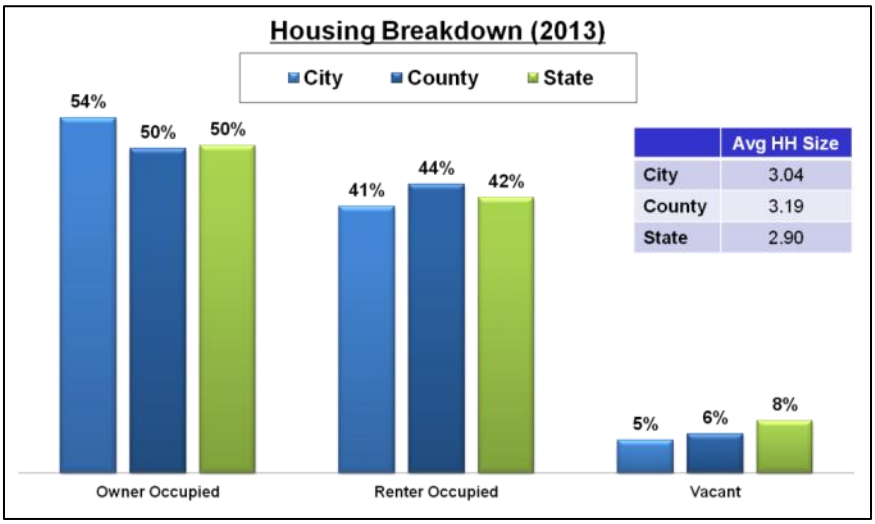
Further insight into the characteristics of Hanford's population can be gained by examining household composition, such as the proportion of families with children, single adults, and single parents.

As of 2013, Hanford has an average household size of 3.04 people. At 5.4%, the city has one of the lower residential vacancy rates throughout the county (Table 2-5). Countywide, Hanford's population and housing rates are currently the most similar in nature to the city of Lemoore, as they both have similar vacancy rates and persons per household, despite Hanford being more than double in population. Due to Hanford's low residential vacancy rate it will be crucial to plan for new residential land uses as the population increases in size.

***Table 2-5: County Housing Estimates with Vacancy Rates (2013)***

| Cities within Kings County Population and Housing Estimates 2013 | | | | |
|---|---|---|---|---|
| | Population | HH | Vacancy Rate | Persons per HH |
| Avenal | 14,225 | 9,252 | 7.80% | 4.13 |
| Corcoran | 23,154 | 12,822 | 9.20% | 3.53 |
| Hanford | 55,479 | 54,414 | 5.40% | 3.06 |
| Lemoore | 25,262 | 25,245 | 5.00% | 3.02 |

***Figure 2-7: Housing Breakdown (2013)***




As of 2013, the occupied households within Hanford are currently comprised of 54% owner-occupants and 41% renter-occupants (Figure 2-7). Owner-occupied households for Hanford are approximately 4% higher than both the County and the State percentages for 2013.

Between 2010 and 2012, the City's housing types consisted of 77% single-family, 21% multi-family and 2% mobile homes (Figure 2-8).

With the current projected population rates, it is becoming increasingly vital to plan for appropriate housing types to accommodate the demand.

During the period of 2010 to 2012, the age of the City's housing units was as follows: 20% built in 1959 or earlier, 27% built between 1960 and 1979, 35% built between 1980 and 1999, and 18% being built in 2000 or later (Figure 2-9).

***Figure 2-8: Housing Unit Types (2010-2012)***

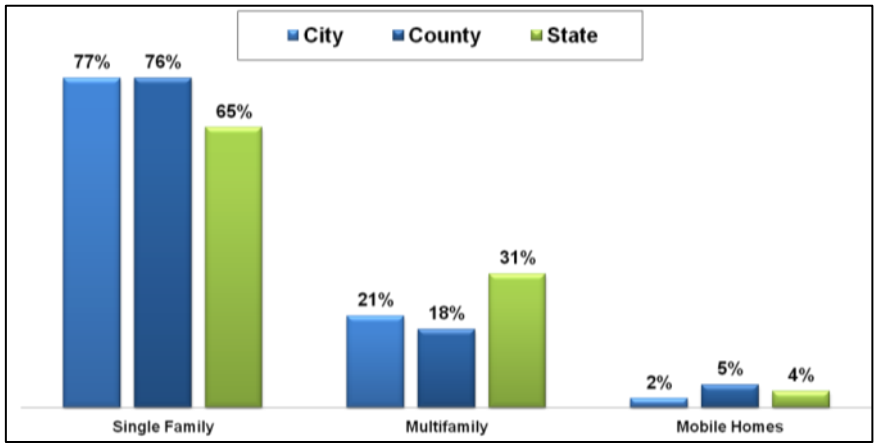
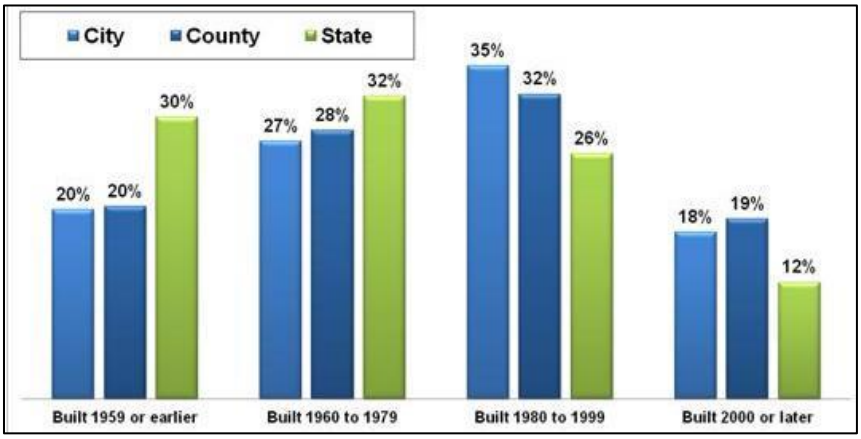



***Figure 2-9: Age of Housing Units (2010-2012)***



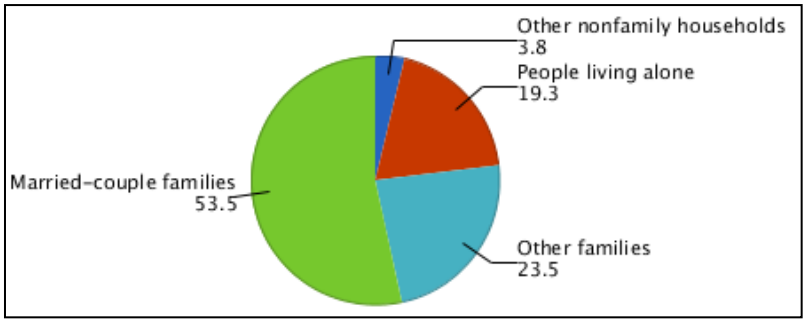

### 2.5.2 Households & Families

Families comprised 77% of the total households in Hanford. This figure includes both married-couple families (54%) and other families (24%). Of other families, 8% are female householder families with no husband present and have children under 18 years old. Non-family households made up 23% of all households in Hanford. Most of the non-family households were people living alone, but some were composed of

people living in households in which no one was related to the head of household (Figure 2-10).

47% of all households have one or more people under the age of 18, and 22% of all households have one or more people 65 years and over.

***Figure 2-10: Types of Households in the City of Hanford (2010-2012)***




### 2.5.3 Home Values

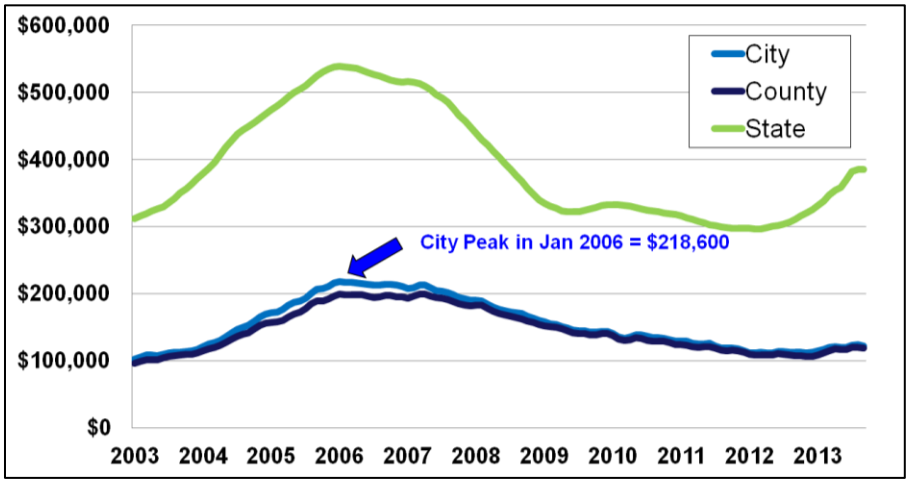
As of September 2013, the average home value in Hanford is $122,000, which is slightly higher than the Kings County average of $118,700, but much lower than the State average of $385,500 (Table 2-6). At $122,000, Hanford has the same home value as Fresno as of September of 2013.

As seen in Figure 2-11, home value trends show that Hanford's home value peaked back in January of 2006 at $218,600.

***Table 2-6: Home Value Index (2013)***

| Home Value Index | September 2013 | Year-Over-Year |
|---|---|---|
| California | $385,500 | 23.80% |
| Kingsburg | $200,400 | 13.30% |
| Visalia | $164,200 | 19.20% |
| Selma | $148,500 | 19.60% |
| Lemoore | $148,100 | 14.00% |
| Tulare | $132,700 | 23.10% |
| Fresno | $122,000 | 8.20% |
| Hanford | $122,000 | 8.20% |
| Kings County | $118,700 | 10.00% |
| Laton | $106,600 | 14.00% |

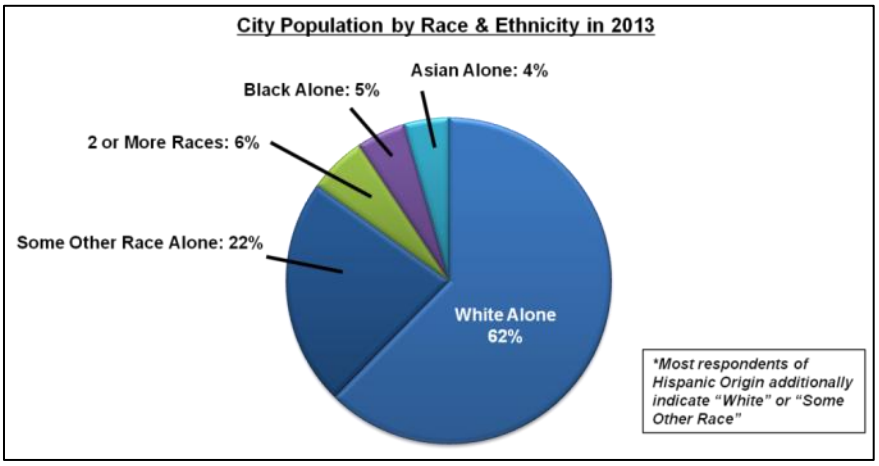
*Figure 2-11: Zillow Home Value Trends (2003-2013)*




## 2.6 Ethnicity & Race

Based upon ESRI 2013 data, the city Population by Race and Ethnicity can be seen below in Figure 2-12, with predominately 62% White alone and 22% of some other race alone. Asian alone comprises 4% of the population and Black alone comprises 5%. 6% of the population consists of two or more races. Hispanic origin of any race makes-up 49% of the city's population. Many ethnicities exist within the city, which means that many Hanford residents have strong language skills in Spanish, Chinese, Portuguese and other languages.

*Figure 2-12: City Population by Race & Ethnicity (2013)*



Between 2005 to 2007 and 2010 to 2012, Hanford had a non-Hispanic White Alone population increase of 19.69%. Additionally, during that timeframe, both the Black and the American Indian population decreased by 48% and 18% respectively. The biggest increase was seen by the White Alone population, with an increase of population from 36,053 to 43,151 (Table 2-7).

***Table 2-7: Comparison of Race/Ethnicity***

| Comparison of Race/Ethnicity for the City of Hanford | | |
|---|---|---|
| **Race** | **Hanford 2005-2007** | **Hanford 2010-2012** |
| White Alone | 36,053 | 43,151 |
| Black | 4,177 | 2,157 |
| American Indian | 373 | 305 |
| Asian alone | 2,039 | 2,342 |
| Native Hawaiian | 0 | 20 |
| Some other race alone | 5,691 | 4,538 |
| Two or more races | 909 | 1,692 |

Between 2000 to 2010, the County of Kings experienced the greatest increase in the 'Asian alone' race category, going from 1,640 to 5,620, an increase of 41.21%. The next greatest increase was within the 'Two or more races" category, with an increase of 20.8%. The county saw the smallest increase in the "Black or African American alone" race category, as it only increased by 2.5%, going from 10,747 to 11,014 residents (Figure 2-13).

## 2.7 Employment

### 2.7.1 Non-Residential Development Trends and Employment Growth

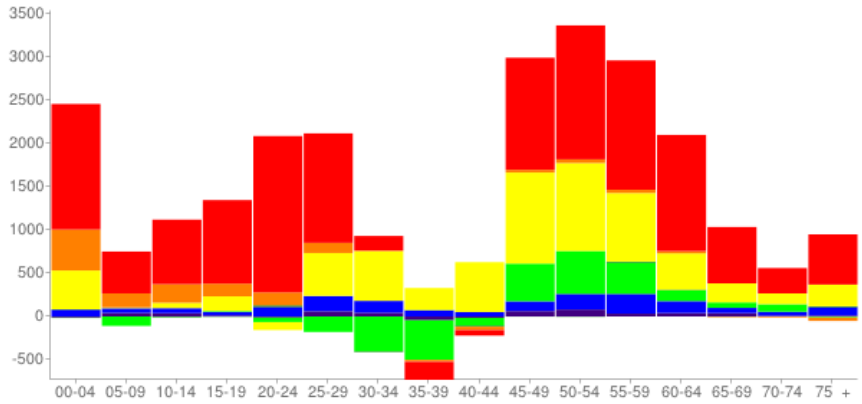
With the population of Hanford steadily rising each year, it will be vital that the number of jobs generated locally, increase to meet the demand of the growing and aging population.

Between 2010 and 2012, Kings County had an estimated employed rate of 44.7% labor work force while Hanford's estimated employed rate was 53.9%. The majority of the county's employed age cohort was from ages 25 to 44 and 55 to 64, while the majority of the city's employed age cohort ranged from ages 25 to 44 and 45 to 54.

***Figure 2-13: Change in Population between 2000 to 2010, by Race – Kings County***

| Change in Population between 2000 and 2010, by Race - Kings County, California | Change | Percentages | Color |
|---|---|---|---|
| American Indian and Alaska native alone | 384 | 17.63% | |
| Asian alone | 1,640 | 41.21% | |
| Black or African American alone | 267 | 2.48% | |
| Native Hawaiian and Other Pacific native alone | 21 | 8.40% | |
| Some other race alone | 6,385 | 17.44% | |
| Two or more races | 1,289 | 20.78% | |
| White alone | 13,535 | 19.48% | |

Graph: Change in Population between 2000 and 2010, by Age and Race - Kings County, California




Of those employed between 2010 to 2012 within Hanford, on average 79.9% of those residents commuted to work by driving alone, 14.8% carpooled, 0.4% used public transportation, and 1.6% walked to work. These percentages reflect the fact that people do not live where they work. As seen on Figure 2-14, the employment concentration within Hanford is primarily centralized within the Downtown area.

From 2012 to 2035, Kings County will see the greatest increase in projected employment within the Manufacturing industry. It is projected to increase by 55% from 5,500 to 8,545 employed, with an annual growth rate of 2.98%. The next greatest increase is seen in the Education, Health Care & Social Assistance industry, increasing by 35% from 5,500 to 7,432 employees between 2012 and 2035. Employment projections within the county suggest higher than average growth for industries including Transportation/ Warehousing/Utilities, Manufacturing and Leisure/Hospitality. Industries projecting lower than average growth include Information, Government, and Professional/Business Services (Table 2-8).

*Figure 2-14: Employment Concentration within City (2011)*

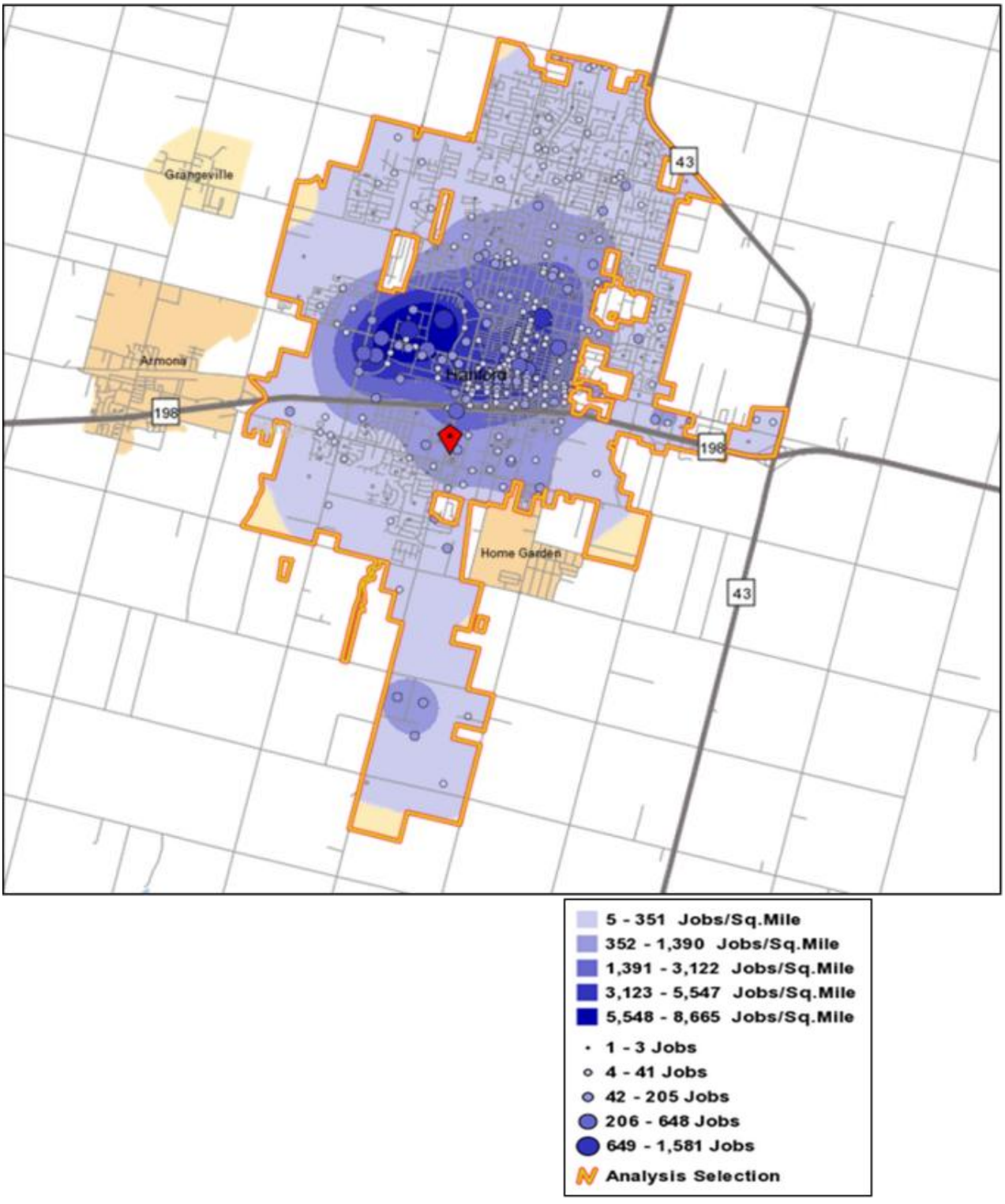


*Table 2-8: Employment Projections by Industry for Kings County*

| Industry | 2010 | 2020 | Annual Growth | 2035 | Change 2010-2035 |
|---|---|---|---|---|---|
| Transportation, Warehousing, and Utilities | 800 | 1,100 | 3.24% | 1,774 | + 974 |
| Manufacturing | 4,100 | 5,500 | 2.98% | 8,545 | + 4,445 |
| Leisure and Hospitality | 2,700 | 3,400 | 2.33% | 4,805 | + 2,105 |
| Education, Health Care & Social Assist. | 4,500 | 5,500 | 2.03% | 7,432 | + 2,932 |
| Mining, Logging, and Construction | 900 | 1,100 | 2.03% | 1,486 | + 586 |
| Financial Activities | 900 | 1,100 | 2.03% | 1,486 | + 586 |
| Retail Trade | 3,900 | 4,700 | 1.88% | 6,218 | + 2,318 |
| Wholesale Trade | 500 | 600 | 1.84% | 789 | + 289 |
| Other Services | 500 | 600 | 1.84% | 789 | + 289 |
| Professional and Business Services | 1,700 | 2,000 | 1.64% | 2,552 | + 852 |
| Government | 15,000 | 16,000 | 0.65% | 17,626 | + 2,626 |
| Information | 200 | 200 | 0.00% | 200 | 0 |
| Total Nonfarm | 35,600 | 41,800 | 1.62% | 53,182 | + 17,582 |
| Total Farm | 6,600 | 7,100 | 0.73% | 7,922 | + 1,322 |
| Other | 4,800 | 5,000 | 0.41% | 5,316 | + 521 |
| Total Employment | **47,000** | **53,900** | **1.38%** | **66,195** | **+ 19,195** |

*EDD / BLS projections through 2020*

*Extrapolation through 2035*

Source: California Employment Development Department. (EDD) and US Bureau of Labor Statistics (BLS)

For employment projections by occupation, from 2010 to 2035, the county will see the greatest increase in Production workers. Increasing from 2,710 to 4,992 Production workers with an annual growth rate of 2.47%, the median annual wage for employees in the Production occupation is $33,575. The second greatest employment projection increase in occupation is for Transportation and Material Moving. Increasing from 2,640 to 4,542 workers, the annual wage for the Transportation and Material Moving occupation is approximately $30,605 (Table 2-9).

Among the fastest growing occupations in the county are various jobs within Retail, Heath Care and Transportation/Warehousing.

*Table 2-9: Employment Projections by Occupation for Kings County*

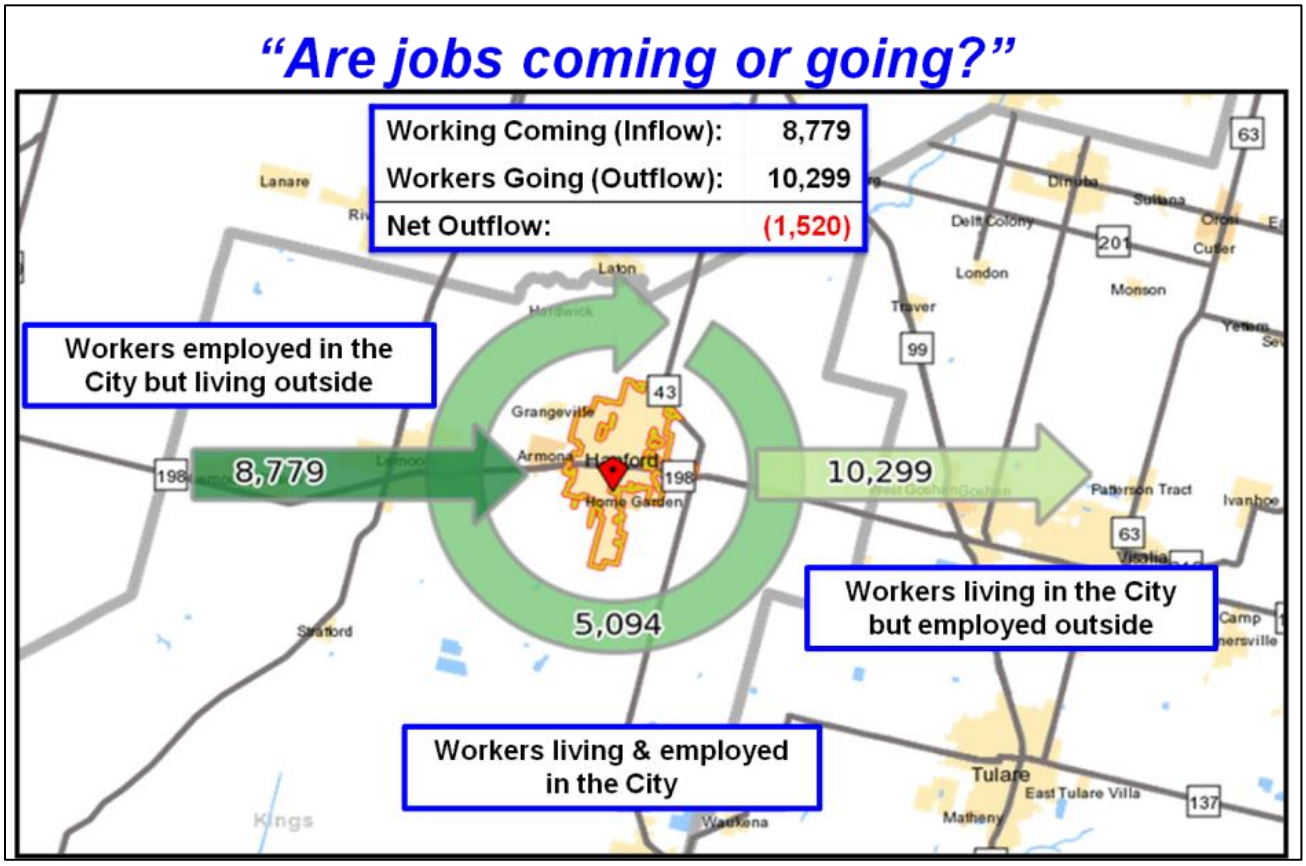
| Occupation Category | Median Annual Wage | 2010 | 2020 | Annual Growth | 2035 | Change (2010-35) |
|---|---|---|---|---|---|---|
| Computer and Mathematical | $65,891 | 250 | 320 | 2.50% | 463 | + 143 |
| Production | $33,575 | 2,710 | 3,460 | 2.47% | 4,992 | + 1,532 |
| Transportation and Material Moving | $30,605 | 2,640 | 3,280 | 2.19% | 4,542 | + 1,262 |
| Installation, Maintenance, and Repair | $41,764 | 1,630 | 2,010 | 2.12% | 2,752 | + 742 |
| Life, Physical, and Social Science | $54,946 | 470 | 570 | 1.95% | 761 | + 191 |
| Healthcare Support | $27,970 | 1,080 | 1,290 | 1.79% | 1,684 | + 394 |
| Community and Social Service | $72,320 | 620 | 740 | 1.79% | 965 | + 225 |
| Food Preparation and Serving Related | $18,973 | 2,960 | 3,530 | 1.78% | 4,597 | + 1,067 |
| Healthcare Practitioners and Technical | $76,252 | 2,470 | 2,930 | 1.72% | 3,786 | + 856 |
| Business and Financial Operations | $54,947 | 1,030 | 1,220 | 1.71% | 1,573 | + 353 |
| Sales and Related | $22,347 | 3,550 | 4,170 | 1.62% | 5,309 | + 1,139 |
| Architecture and Engineering | $69,782 | 190 | 220 | 1.48% | 274 | + 54 |
| Office and Administrative Support | $32,753 | 5,630 | 6,330 | 1.18% | 7,547 | + 1,217 |
| Education, Training, and Library | $42,648 | 3,490 | 3,920 | 1.17% | 4,666 | + 746 |
| Building and Grounds Cleaning and Maintenance | $28,444 | 1,440 | 1,610 | 1.12% | 1,903 | + 293 |
| Arts, Design, Entertainment, Sports, and Media | $41,361 | 270 | 300 | 1.06% | 351 | + 51 |
| Personal Care and Service | $19,374 | 2,160 | 2,390 | 1.02% | 2,782 | + 392 |
| Management | $83,009 | 3,240 | 3,580 | 1.00% | 4,158 | + 578 |
| Construction and Extraction | $37,318 | 1,160 | 1,280 | 0.99% | 1,484 | + 204 |
| Legal | (not avail.) | 110 | 120 | 0.87% | 137 | + 17 |
| Farming, Fishing, and Forestry | $18,526 | 5,260 | 5,650 | 0.72% | 6,290 | + 640 |
| Protective Service | $74,956 | 4,630 | 4,890 | 0.55% | 5,308 | + 418 |
| | | *EDD / BLS projections through 2020* | | | *Extrapolation through 2035* | |

Source: California Employment Development Department. (EDD) and US Bureau of Labor Statistics (BLS)

According to American Community Survey, in 2012, the types of jobs within Hanford were categorized as 66% Private wage or salary, 27% Government, 7% Self-employed and 1.0% Unpaid family work.

Hanford currently maintains a strong job base with approximately 8,779 out-of-town workers commuting into Hanford to work during the week. Conversely, 10,299 workers commute out of Hanford to work in another city, resulting in an overall net outflow of 1,520 workers. Approximately 5,094 people both live and are employed in the city (Figure 2-15). Hanford workers that commute from outside of the city limits primarily come from Lemoore and Visalia. Employment for the residents of Hanford is primarily concentrated within the health care, retail trade, public administration and educational workforce. These professions alone total 64.1% of the population.

*Figure 2-15: Worker Inflow/Outflow*




### 2.7.2 Income

According to ESRI data, the average income of households in Hanford for 2013 is $65,673, which is slightly higher than the county average of $61,000. As of 2013, the greatest cohort is the 19.0% of residents that have a household income between $50,000 and $75,000. 10% of households had income below $15,000 a year, and 5% had income over $150,000 or more (Figure 2-16).

Between 2010 and 2012, males on average made approximately 34% more than females did (Figure 2-17).

*Figure 2-16: Households by Income Bracket (2013*

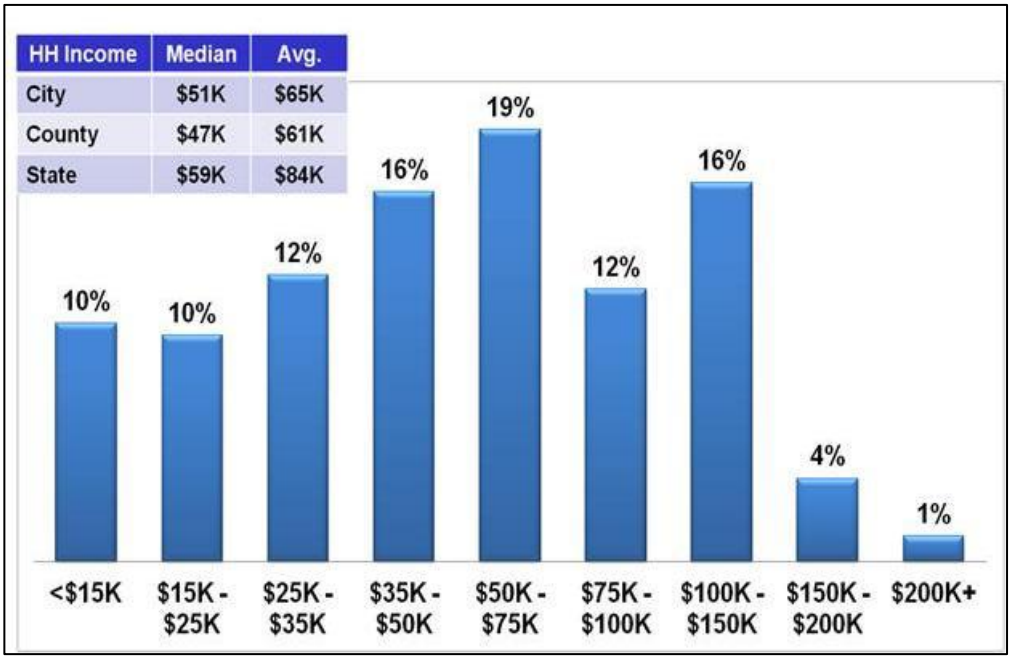
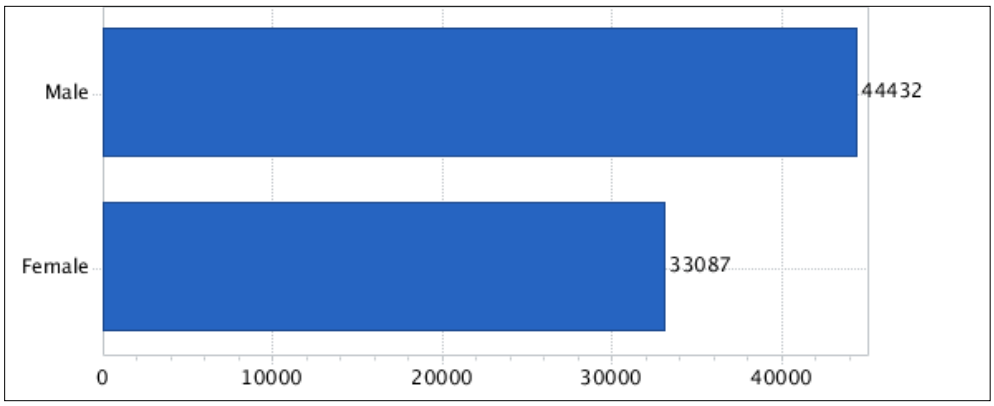


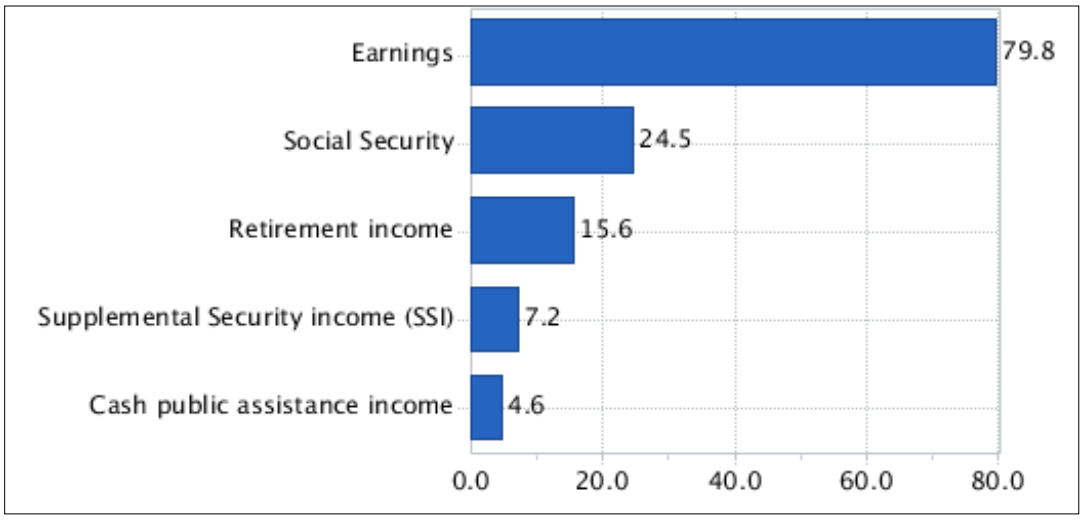

*Figure 2-17: Median Earnings for Full-Time Year-Round Workers by Sex (2010-2012)*




### 2.7.3 Unemployment and Poverty

During 2010 to 2012, approximately 80% of the households received earnings and 25% of the households received Social Security. 16% of households received retirement income other than Social Security. The average income from Social Security was $15,534. These income sources are not mutually exclusive; that is, some households received income from more than one source (Figure 2-18).

***Figure 2-18: Proportion of Households with Various Income Sources (2010-2012)***

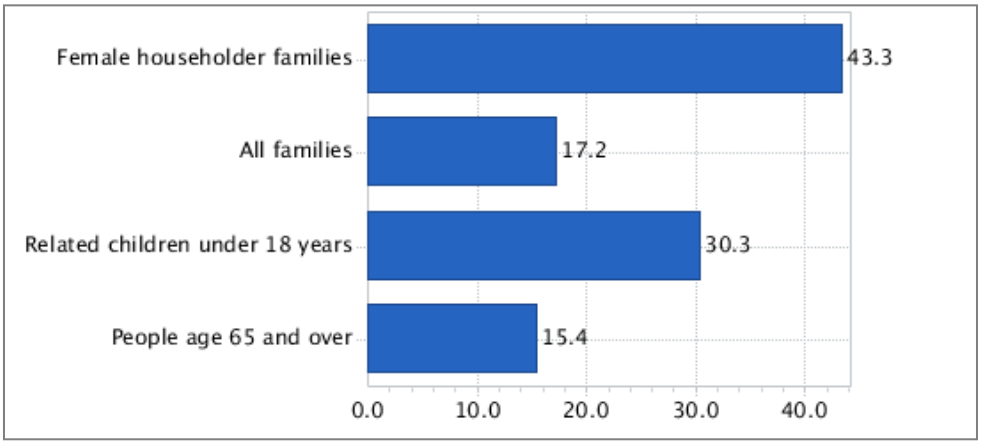



As seen from Figure 2-19, 17.2% of Hanford families had income below the poverty level between 2010 and 2012. This percentage was just slightly lower than the overall county percentage of 17.8%. Of the 17.2% of families in Hanford with income below the poverty level, 43.3% of those were female householders with no husband present. Of those 43.3%, 42% of those households consisted of related children under the age of 5 years old, as shown in Figure 2-20. The smallest cohort of poverty rates of those within Hanford were the residents aged 65 and over.

***Figure 2-19: Percentage of Families with Income Below Poverty Level (2010-2012)***

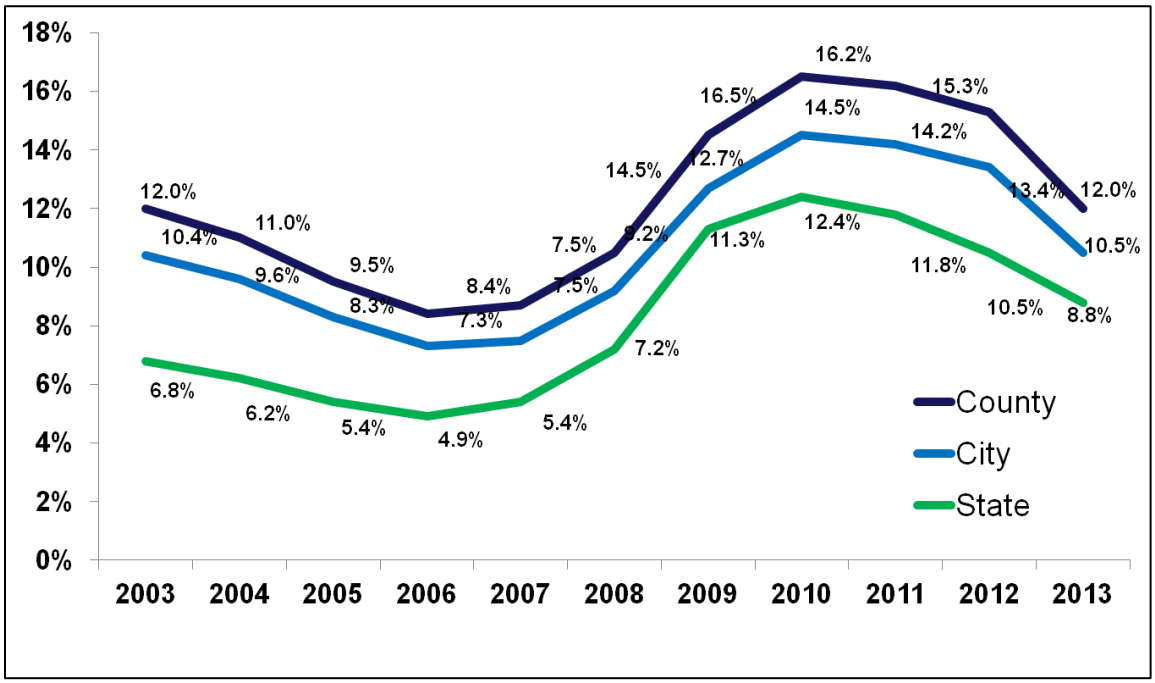
| Percentage of Families whose Income is Below the Poverty Level Between 2010-2012 | | |
|---|---|---|
| | City of Hanford | Kings County |
| All Families | 17.20% | 17.80% |
| With Children under 18 | 25.00% | 25.50% |
| Female Householder (no husband) | 43.30% | 40.60% |

***Figure 2-20: Poverty Rates in the City of Hanford (2010-2012)***




From 2010 to 2013, the unemployment rate for Hanford decreased from 14.5% to 10.5%. Similarly, the Kings County unemployment rate decreased from 16.2% to 12.0%. Hanford's unemployment rate (10.5%) remains lower than that of Kings County (12%), yet higher than the unemployment rate of California (8.8%) (Figure 2-21).

***Figure 2-21: Unemployment (2003-2013)***



## 2.8 Market Trends

### 2.8.1 Hanford Industrial/Commercial Market Trends

The Kings Industrial Park is a 1,100-acre industrial area that includes sixteen businesses producing over 500 jobs. Many sites are still vacant, having only been used for agricultural uses. The industrial park is located two miles south of Highway 198, which connects to Interstate 5 and State Highway 99. In 2011, an Industrial Park Study was prepared that evaluated existing conditions and recommended a marketing plan to accelerate industrial development. The Study included evaluating the City's policies, programs and projects that support the economic viability of the Industrial Park, assessing and updating a recruitment strategy as needed to bring new businesses into the Kings Industrial Park.

The types of current businesses within the Industrial Park include agribusinesses, two fertilizer producers (Verdegaal and Tessendero-Kerley, Inc.), and GWF natural gas co-generation plant. Pirelli Tire closed its Hanford operation in 2001 and the one million square foot warehouse has been vacant since then.

Anderson Clayton Hanford Gin closed in 2006, and in 2009, Western Milling took over the facility. Another new project is Superior Lock and Safe, a distributor on 2.56 acres. Wal-Mart Pharmaceuticals is doubling the size of its building and will employ approximately 70 people.

### 2.8.2 Demographic Trends and Potential Implications for Economic Development

Dissolution of redevelopment agencies, coupled with slow national economic recovery, will continue to have a negative effect on most California cities and negatively impact the health of city's general funds.

Alternative economic tools should be explored for Hanford to retain and improve tax base and facilitate potential public-private transactions. Figure 2-22 lists possible strategies.

The City of Hanford may consider evaluation of potential economic development tools and strategies on a case-by-case/transactional basis.

*Figure 2-22: Possible Economic Development Strategies*

| Local Level | State & Federal Level |
|---|---|
| • Site-specific tax revenue ("SSTR") pledges<br>• Impact fee reductions / waivers / deferrals<br>• Development opportunity reserve ("DOR")<br>• Tax-exempt revenue & utility bonds<br>• Lease-leaseback financing<br>• Ground leases<br>• Operating covenants | • Small Business Administration (SBA) loans<br>• U.S. Economic Development Administration (EDA) grants<br>• New Market Tax Credits (NMTCs)<br>• CA Infrastructure Bank (I-Bank) loans<br>• EB-5 Immigrant Investment |

As of 2011, the former Community Redevelopment Agency of the City of Hanford (Agency) owned eight parcels for sale in the industrial park. The Kings Economic Development Corporation (KEDC) lent the Agency the funds to purchase the land. There are six other parcels for sale. In addition, Hanford owns two drainage parcels, one on the south side of Energy Street between 11th Avenue and Power Way (2.53 acres), and the other is on the north side of Industry Avenue between Crown Avenue and the railroad tracks (1.94 acres).

### 2.8.3 Taxable Sales Trends

In 2012, Hanford had taxable retail sales of $633 million, which was above average when compared to the neighboring cities of Avenal, Corcoran and Lemoore, but lower than the cities of Tulare and Visalia, as well as Kings County (Figure 2-23).

As seen in Figure 2-24, overall retail sales in Hanford are higher than the retail spending potential based on households and average household income, suggesting that the city is likely capturing a significant portion of Hanford resident retail purchases and additionally capturing retail spending by residents of other cities and the visitor population (i.e., a sales surplus).

*Figure 2-23: Taxable Retail Sales (2012)*

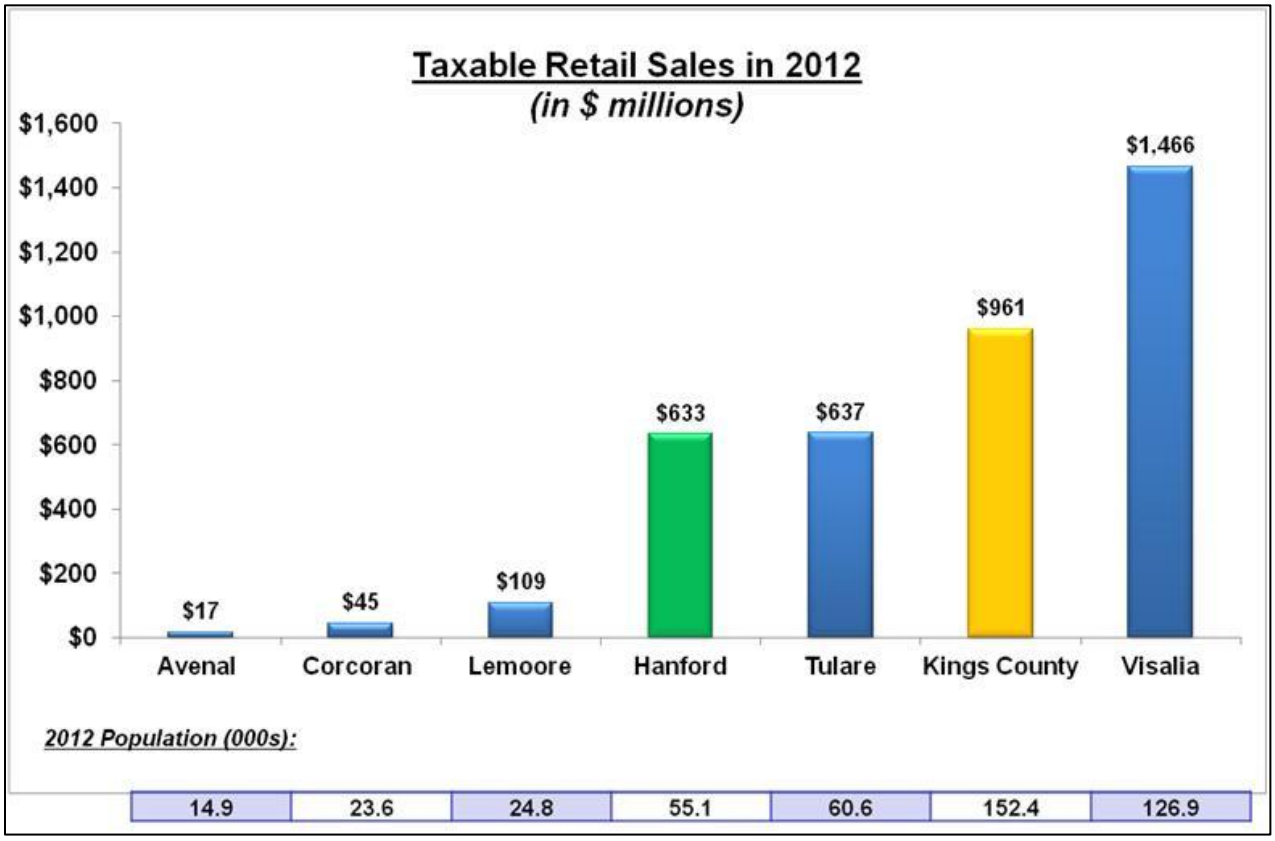



*Figure 2-24 Retail Sales and Spending Potential per Capita (2012)*

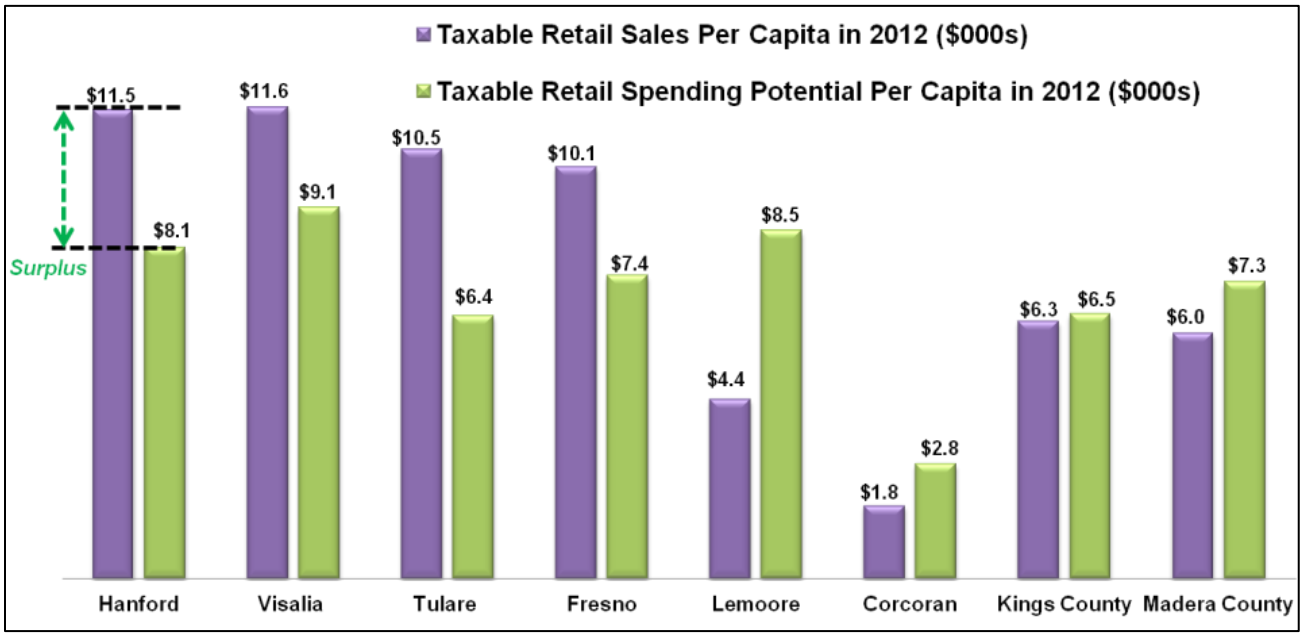


Table 2-10 shows the Retail Sales Surplus/Leakage by Category for Hanford. The breakdown shows where Hanford is experiencing a retail surplus versus a retail leakage. For example, for Motor Vehicle & Parts Dealers, the retail spending potential for 2012 was $80,720,824, however the actual retail sales for that year was $144,405,545, resulting in a 79% surplus of $63,684,721.

***Table 2-10: Hanford Retail Sales Surplus/Leakage by Category (2012)***

| Retail Category | Retail Spending Potential (2012) | Retail Sales (2012) | Retail Surplus / Leakage | Percent Surplus / Leakage |
|---|---|---|---|---|
| Motor Vehicle & Parts Dealers | $80,720,824 | $144,405,545 | 63,684,721 | 79% |
| Furniture & Home Furnishings | $10,078,053 | $11,520,976 | 1,442,923 | 14% |
| Electronics & Appliances | $11,252,795 | $10,272,639 | (980,156) | (9%) |
| Bldg. Materials, Garden & Supply | $12,789,449 | $26,437,975 | 13,648,526 | 107% |
| Food & Beverage Stores | $77,286,854 | $94,497,955 | 17,211,101 | 22% |
| Health & Personal Care | $35,912,666 | $25,018,277 | (10,894,389) | (30%) |
| Gasoline Stations | $40,790,813 | $24,601,580 | (16,189,233) | (40%) |
| Clothing & Accessories | $28,908,814 | $42,452,805 | 13,543,991 | 47% |
| Sporting, Hobby, Book & Music Stores | $11,023,370 | $7,997,414 | (3,025,956) | (27%) |
| General Merchandise Stores | $65,163,424 | $194,050,772 | 128,887,348 | 198% |
| Miscellaneous Store Retailers | $13,737,802 | $12,648,845 | (1,088,957) | (8%) |
| Non-store Retailers* | $33,560,689 | $11,112,240 | (22,448,449) | (67%) |
| Food & Drinking Places | $46,705,360 | $65,286,474 | 18,581,114 | 40% |
| **Total Retail** | **$467,930,913** | **$670,303,497** | **202,372,584** | **43%** |

The biggest retail sales leakage for Hanford is seen within the retail category of Gasoline Stations. For the year 2012, the retail spending potential for Hanford was $40,790,813 however, only $24,601,580 was captured in overall retail sales. This resulted in a 40% leakage rate.

Table 2-11 compares Hanford's 2012 per capita retail sales by category with surrounding communities. Compared to Tulare, Visalia, Fresno and Kings County, Hanford has higher per capita retail sales in the following categories: Grocery, Building Materials, and Auto Dealers & Supplies. In referencing the total general retail sales per capita, Hanford has the overall higher values compared to every other jurisdiction listed above except Visalia.

*Table 2-11: Per Capita Retail Sales by Category, Hanford & Comparison Communities (2012)*

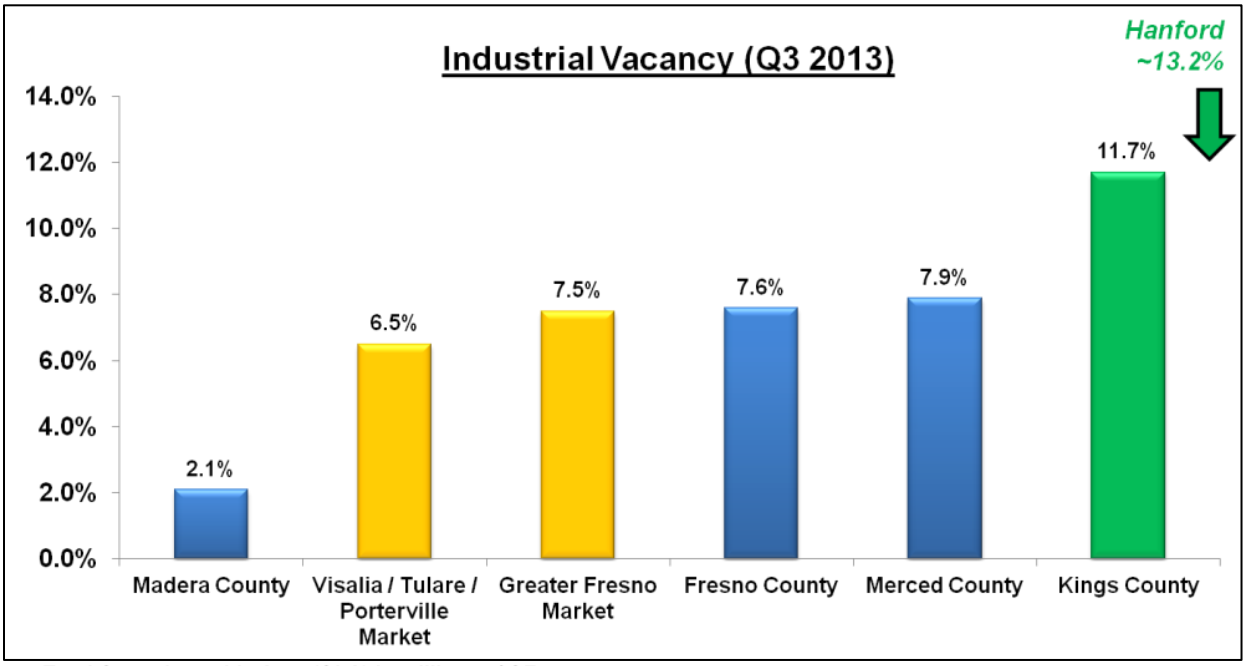
| Per Capita Sales (2012) | Hanford | Tulare | Visalia | Fresno | Kings County |
|---|---|---|---|---|---|
| *Shopper Goods / GAFO* | | | | | |
| Apparel | $870 | $1,098 | $856 | $770 | $309 |
| General Merchandise | $2,638 | $1,612 | $2,858 | $1,711 | $1,074 |
| Home Furn. & App. | $262 | $129 | $649 | $541 | $225 |
| Other Retail | $945 | $620 | $1,377 | $1,100 | $671 |
| *Convenience Goods* | | | | | |
| Grocery | $766 | $616 | $633 | $722 | $496 |
| Restaurants & Bars | $1,390 | $1,110 | $1,550 | $1,406 | $817 |
| *Heavy Commercial Goods* | | | | | |
| Building Materials | $1,125 | $1,102 | $880 | $669 | $444 |
| Auto Dealers & Supp. | $2,157 | $1,264 | $1,705 | $1,666 | $991 |
| Service Stations | $1,328 | $2,963 | $1,048 | $1,507 | $1,167 |
| | | | | | |
| Total Retail | $11,482 | $10,513 | $11,556 | $10,094 | $6,308 |

Key: Indicates higher value for Hanford  Indicates lower value for Hanford

### 2.8.4 Supply of Commercial/Industrial Property

Hanford has experienced growth in the industrial category, primarily due to development in the Hanford Industrial Park. Despite the industry growth, the 2013 demand does not meet the current supply. There is currently a 13.2% vacancy rate for the industrial sector within Hanford, which is higher than the vacancy rate in nearby jurisdictions (Figure 2-25). Due to the lack of industrial facility demand within Hanford, the 2013 industrial lease rate is currently the lowest compared to the counties and cities listed above (Figure 2-26).

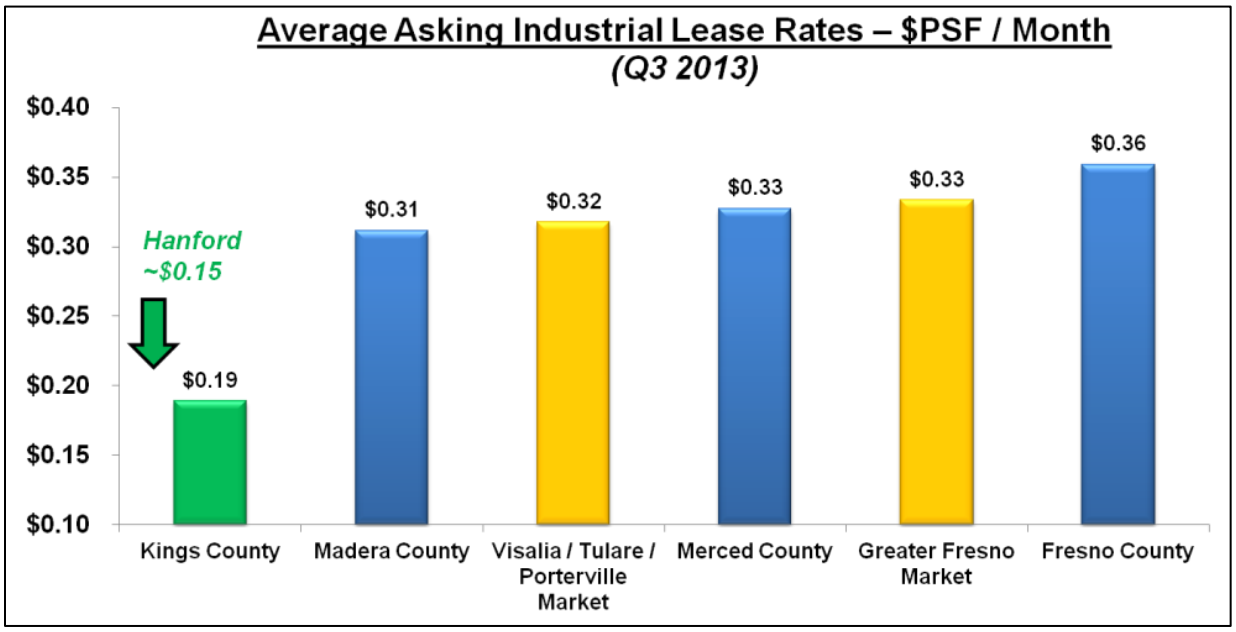
*Figure 2-25: Industrial Vacancy by Market (2013)*




***Total Gross Leasable Area (GLA) in millions of SF:***

| | | | | | |
|---|---|---|---|---|---|
| 8.5 | 30.6 | 100.3 | 73.6 | 10.1 | 8.1 |

*Figure 2-26: Average Asking Industrial Lease Rates (2013)*



The 2013 retail vacancy rate in Hanford is 10.2%, which is higher than both Kings County and the Greater Fresno Market (Figure 2-27). As of 2013, Hanford had 372 businesses within the BID (Business Improvement District) with 38 available locations for lease or rent. Similarly, the average asking retail lease rate per month is higher than both Fresno County and the Greater Fresno Market (Figure 2-28).

***Figure 2-27: Retail Vacancy by Market (2013)***

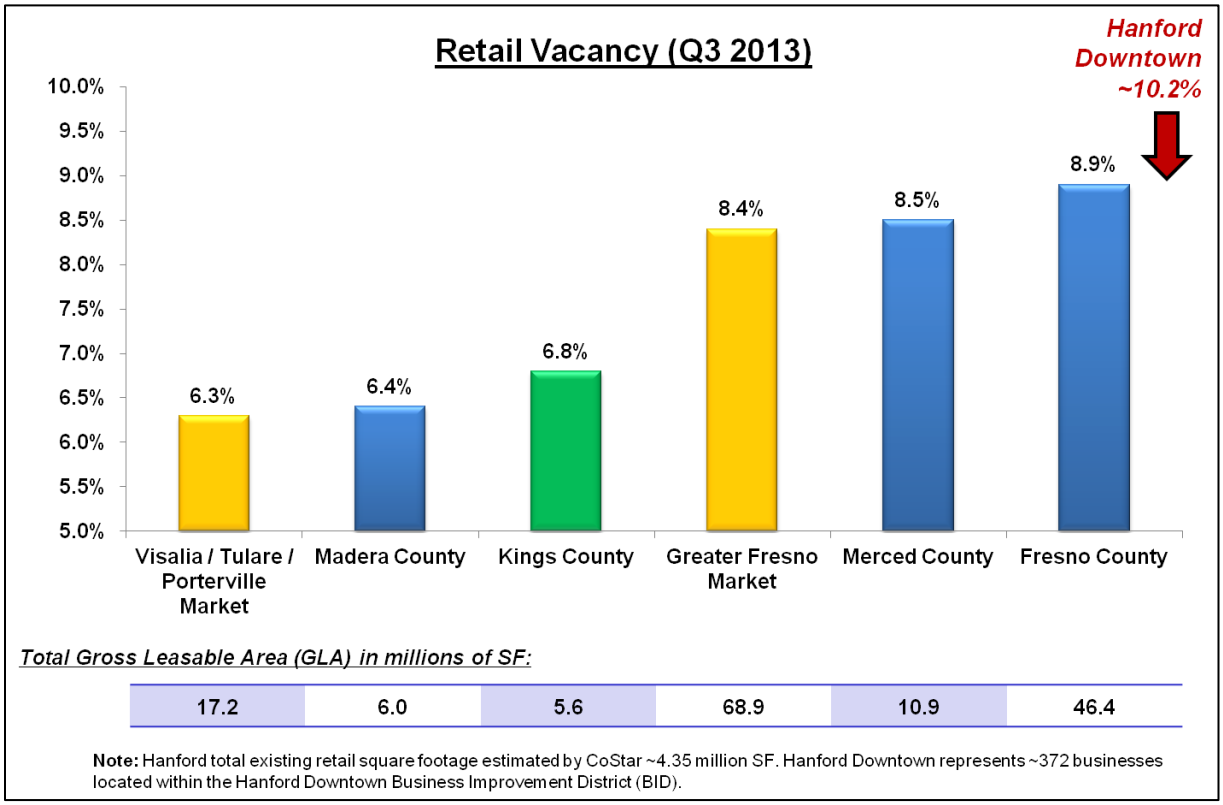
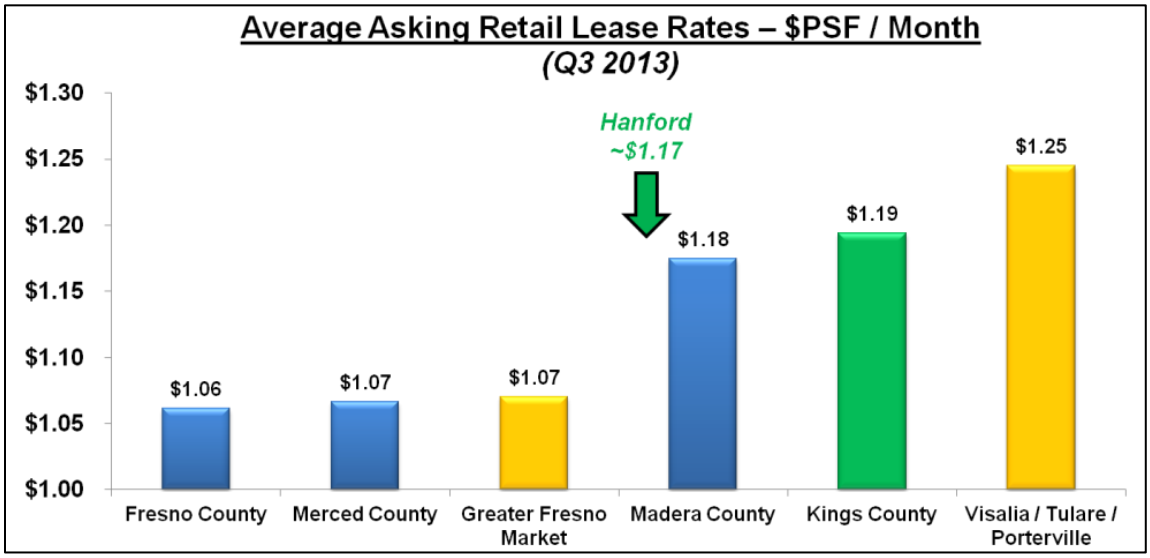
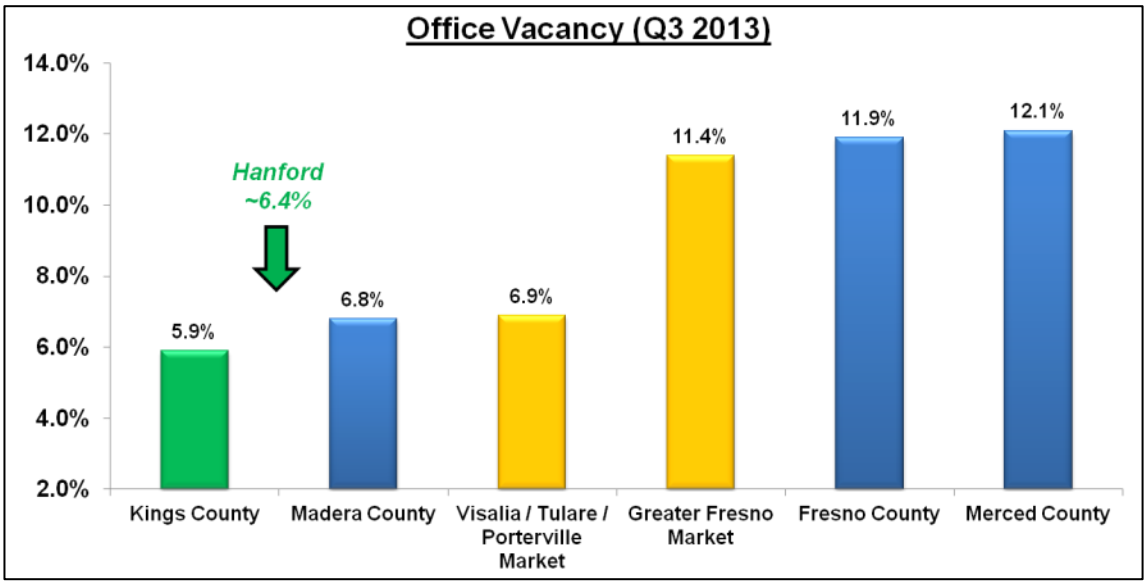


*Figure 2-28: Average Asking Retail Lease Rates (2013)*




The 2013 office vacancy rate for Hanford is 6.4%, which is higher than Kings County office vacancy rate of 5.9% (Figure 2-29). Although it may appear to be a positive indicator for having low office and retail vacancy rates now, having these low rates will be an issue in the future if there is not enough office and retail spaces to meet the growing population. Office lease rates are higher than the Fresno area, but lower than Visalia, Tulare, and rest of Kings County (Figure 2-30).

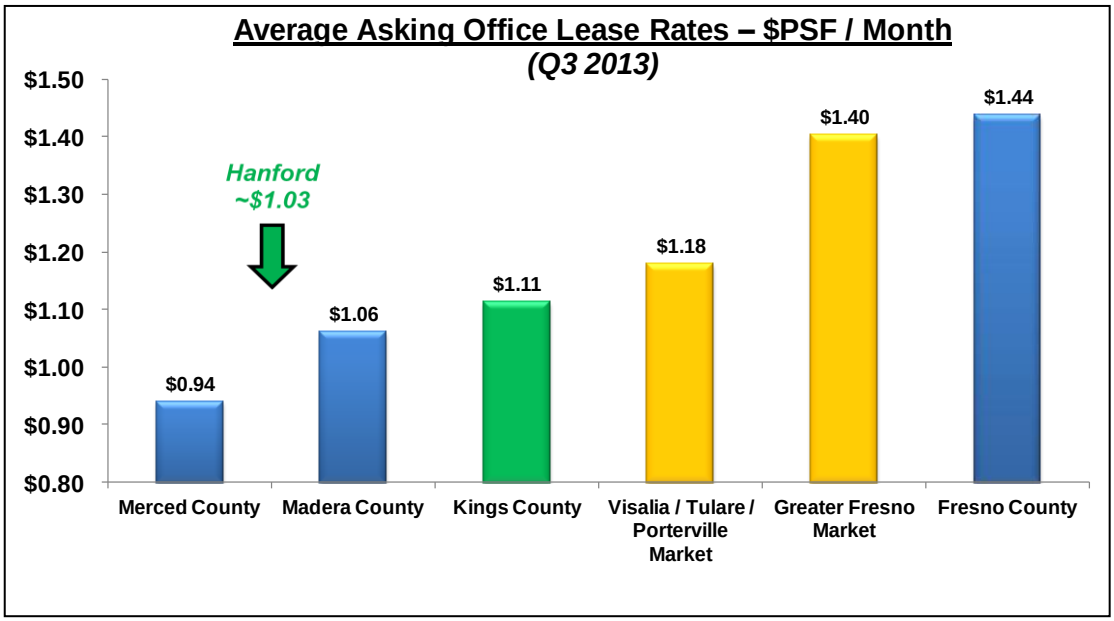
*Figure 2-29: Office Vacancy (2013)*




***Total Gross Leasable Area (GLA) in millions of SF:***

| | | | | | |
|---|---|---|---|---|---|
| 1.4 | 1.3 | 6.2 | 32.6 | 26.6 | 3.3 |

*Figure 2-30: Office Average Asking Office Lease Rates (2013)*



# CHAPTER 3

# LAND USE & COMMUNITY DESIGN

# CHAPTER 3
# LAND USE & COMMUNITY DESIGN

## 3.1 Introduction

Land use is one of the primary focuses of the General Plan. This chapter provides the broad context for the General Plan by describing existing land use conditions and plans that will affect future land use in Hanford. This chapter describes existing land use and prime development opportunity sites, examines the 2002 Hanford General Plan and the Zoning Ordinance, and summarizes other local and regional plans that may have a bearing on land use planning in Hanford. It also reviews the physical structures and features of the community, covers the history of urban development in Hanford, and provides an overall visual assessment of the community.

This chapter is divided into the following sections:

- Land Use
- Existing Hanford General Plan
- Existing Zoning Ordinance
- Other City, County, and Regional Plans
- Community Design
- Architectural Character

## 3.2 Land Use

### 3.2.1 Existing Land Use

Critical to the formulation of a new land use map and standards for Hanford is an understanding of the type and distribution of existing land

uses in the city. This knowledge can assist in evaluating whether past General Plan policies have been effective in directing new development and population growth to areas where they could best be accommodated and can indicate where new growth should be encouraged. In comparison with the holding capacity statistics for the existing General Plan, existing land use information and trends indicate whether the remaining capacity for new development will be adequate to accommodate projected population and employment growth over the term of the new plan, and thereby highlight the need for new growth areas or the expansion of existing areas.

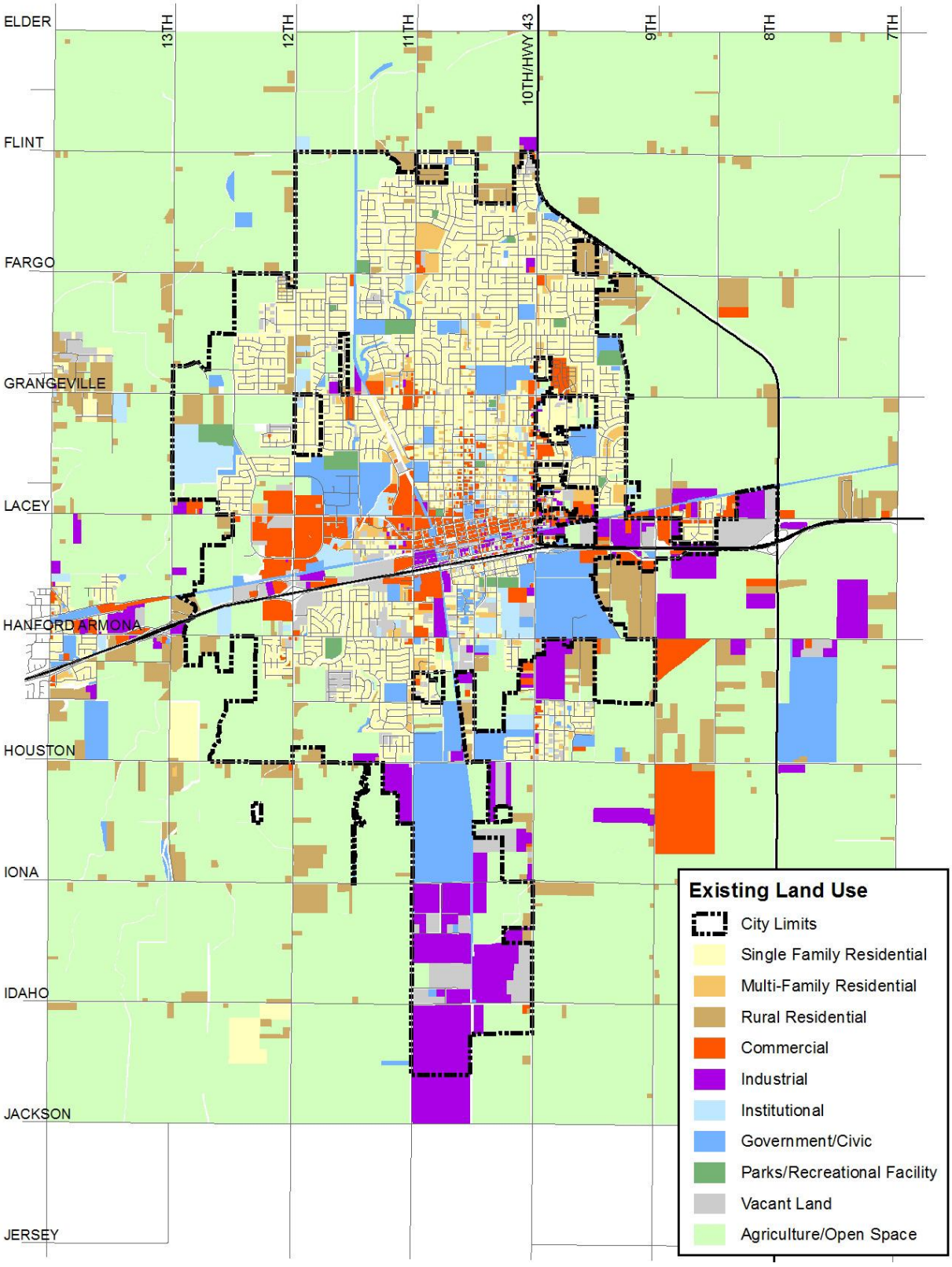
Hanford can be characterized as a low rise (one or two story building heights) community dominated by low density, single-family housing along with some limited pockets of multi-family housing, low intensity commercial uses, and several industrial areas. Most the city's older urban development lies north of the Union Pacific railroad tracks and south of Grangeville Road, while the newly urbanized areas are north of Grangeville Road. The areas immediately surrounding the urbanized area consists predominately of agricultural land.

### 3.2.2 Existing Development

The existing land use data used in this section was provided by Kings County and the City of Hanford. Kings County Assessor's Office 2013 data was used to estimate existing land use acreages.

Figure 3-1 shows the existing land use pattern within the Planning Area. Table 3-1 provides a breakdown of existing land use in the City Limits, Spheres of Influence and Planning Area. Figure 3-2 breaks down the land use area percentages inside the city limits in a pie chart. The data was derived from Kings County Assessor's data with some adjustments made during field verifications.

*Figure 3-1: Existing Land Use*

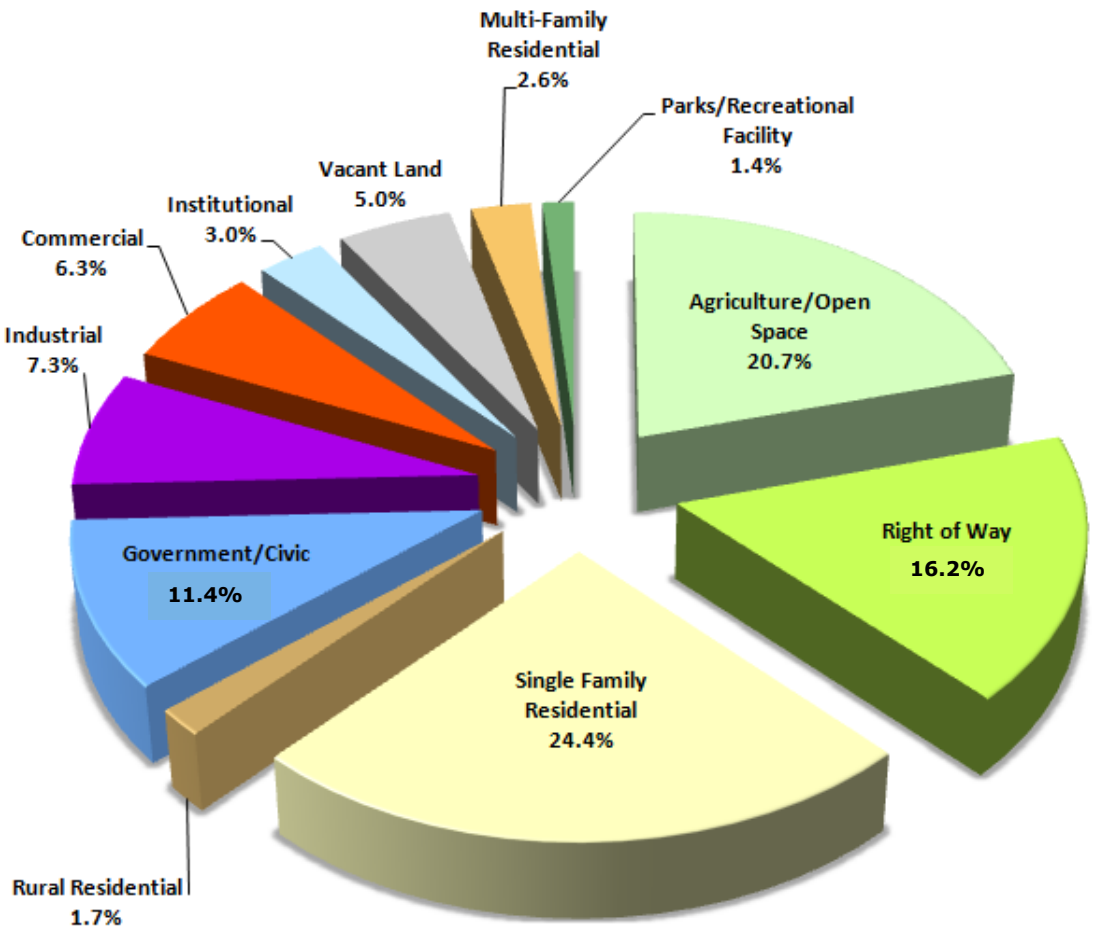


## *Table 3-1 Existing Land Use Acreage*

| | ***Within City Limits*** | | ***Within Primary Sphere*** | | ***Within Secondary Sphere*** | | ***Within Planning Area*** | | ***TOTAL PLANNING AREA*** | |
|---|---|---|---|---|---|---|---|---|---|---|
| ***LAND USE*** | ***ACRES*** | ***%*** | ***ACRES*** | ***%*** | ***ACRES*** | ***%*** | ***ACRES*** | ***%*** | ***ACRES*** | ***%*** |
| *Rural Residential* | *191* | *1.7%* | *665* | *11.4%* | *506* | *5.7%* | *528* | *3.5%* | *1,890* | *4.6%* |
| *Single Family* | *2,663* | *24.4%* | *324* | *5.6%* | *90* | *1.0%* | *205* | *1.3%* | *3,282* | *8.0%* |
| *Multi-Family Residential* | *287* | *2.6%* | *20* | *0.3%* | *9* | *0.1%* | *10* | *0.1%* | *326* | *0.8%* |
| *Commercial* | *689* | *6.3%* | *132* | *2.3%* | *43* | *0.5%* | *273* | *1.8%* | *1,137* | *2.8%* |
| *Industrial* | *795* | *7.3%* | *436* | *7.5%* | *112* | *1.3%* | *49* | *0.3%* | *1,393* | *3.4%* |
| *Government & Civic* | *1,251* | *11.4%* | *63* | *1.1%* | *116* | *1.3%* | *10* | *0.1%* | *1,440* | *3.5%* |
| *Institutional* | *326* | *3.0%* | *8* | *0.1%* | *32* | *0.4%* | *19* | *0.1%* | *385* | *0.9%* |
| *Parks & Recreational* | *150* | *1.4%* | *0* | *0.0%* | *0* | *0.0%* | *0* | *0.0%* | *150* | *0.4%* |
| *Vacant Land* | *622* | *5.7%* | *73* | *1.2%* | *46* | *0.5%* | *33* | *0.2%* | *774* | *1.9%* |
| *Agriculture & Open Space* | *2,191* | *20.0%* | *3,838* | *65.9%* | *7,047* | *79.8%* | *13,459* | *88.3%* | *26,535* | *65.0%* |
| *Right-of-Way* | *1,769* | *16.2%* | *267* | *4.6%* | *825* | *9.4%* | *658* | *4.3%* | *3,519* | *8.6%* |
| ***Totals*** | ***10,935*** | | ***5,825*** | | ***8,826*** | | ***15,244*** | | ***40,831*** | |

Source: Kings County Assessor's Office, 2013.

*Figure 3-2: Existing Land Use within City Limits*




### 3.2.3 Growth Rate Projections

The growth rate projection has major implications on the amount of land that will be designated for future growth, and conversely the amount of land that can be preserved to remain in agricultural use. There are a number of methods to estimate Hanford's population in 2035. The two simplest methods are the straight line method and the proportional method. All population projections are compounded.

**Straight Line Growth Rate Method.** The straight line growth rate method of determining future population takes the past growth rate and projects it forward into the future. This method is the most intuitive approach. However, it can provide differing results depending on how far back in time you go to prepare an average annual growth rate. For example, the average annual growth rate from 1990 to 2010 in Hanford

was 2.8%. By comparison, the average annual growth rate from 2000 to 2010 was 2.6%. Using these growth rates and projecting them forward to 2035, the estimated population of Hanford would be 107,100 or 102,400, respectively.

**Proportion of Projected County Growth Method.** The proportional method uses the countywide projection that has been published by the State Department of Finance for Kings County and estimates what proportion of that population estimate should be attributed to Hanford. In 2010, Kings County's population was 152,656, while Hanford's population was 53,967, or 35.35%. The State Department of Finance projects Kings County to have a population of 219,714 in 2035. Proportionally, if Hanford's share is still 35.35% in 2035, then it would have a population of 77,000. This reflects an annual growth rate of 1.5%. However, since cities are growing much faster than the unincorporated areas, it is likely that Hanford's proportion of the Kings County population will be higher than it is today. If it is assumed that all future growth will be in the four incorporated cities in the same proportion as 2010, then Hanford's population can be projected to be 83,800 in 2035. This reflects an annual growth rate of 1.8%.

**Middle Ground.** The two growth rate methods provide very different population projections, the lowest being 77,000 and the highest being 107,100. Since there is no clear, correct answer, the determination of the growth rate will be a key initial determination for the General Plan Citizen's Advisory Committee. Based on the information presented in Chapter 2, it is likely that 77,000 people are probably too low, and that 107,100 is probably too high. The rounded number in the middle would be 90,000 people, which would be roughly a 2.1% average annual growth rate.

***Population Projection Decision***

At the February 19, 2014, meeting of the Citizen's Advisory Committee it was agreed that the General Plan Update should proceed using the Middle Ground method that estimates that Hanford's population in 2035 will be 90,000.

**Significance of the Growth Rate and Population Projection.** Whatever growth rate and population projection is determined will be used as a target for designating the supply of land for future residential, commercial, industrial, and other uses. A key objective of all general plans in the San Joaquin Valley is to balance the need for future urban development with the need to preserve valuable and precious agricultural land.

# 3.3 Existing Hanford General Plan (2002)

The existing 2002 Hanford General Plan determines how land in the city may be developed and used by designating each parcel of land for a particular use or combination of uses and by establishing broad development policies. Land use designations identify both the types of uses that are permitted and the density or intensity of allowed development, such as the number of housing units or the square footage of office or commercial use permitted on an acre of land. The current Hanford General Plan consists of the following elements: Land Use, Circulation, Open Space – Conservation – Recreation, Hazards Management, Public Facilities and Services, Housing, and Air Quality.

## 3.3.1 Existing General Plan Land Use Designations

The 2002 General Plan includes 20 land use designations. Figure 3-3 shows the existing General Plan Land Use Designation Map. The following text is taken from the 2002 General Plan provides an overview of each designation.

**Very Low Density Residential: 0-3 dwelling units/gross acre.** This category is characterized by larger "estate-style" lots for single family residential development. Typical lot sizes would range from 12,000 to 20,000 square feet or greater. Except in extraordinary circumstances it is not envisioned that lots greater than 1 acre would be appropriate within the City limits due to restrictions on the types of activities usually desired on lots over an acre.

**Low Density Residential: 2-9 dwelling units/gross acre.** This category includes single family development on lot sizes more typically found in urban settings. Individual lot sizes would usually range from 6,000 to 10,000 square feet in size. Under Planned Development Zoning provisions, smaller lot sizes may be permitted when clustered around open space amenities, such as a golf course or water feature.

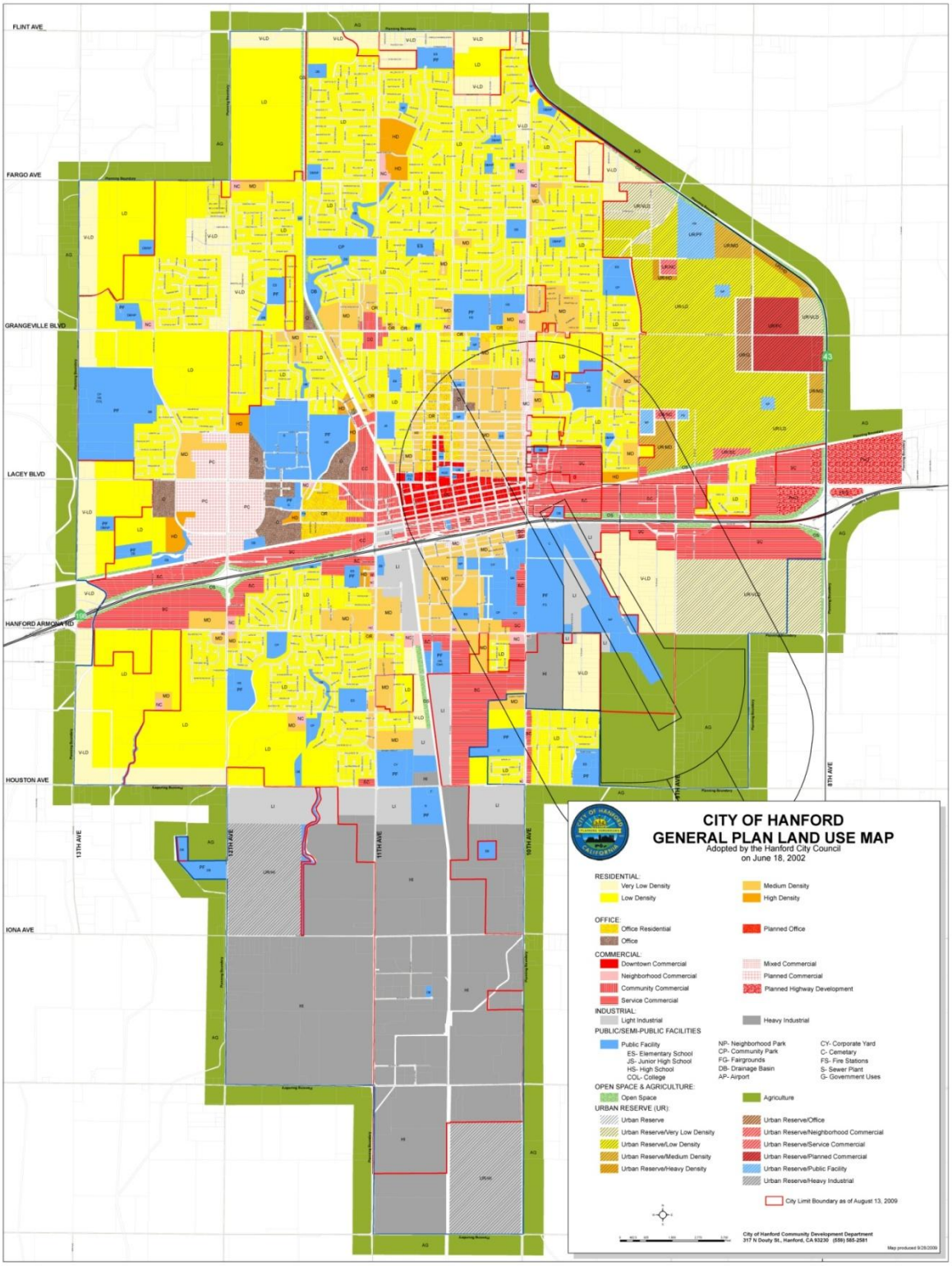
**Medium Density Residential: 7-15 dwelling units/gross acre.** This Designation allows duplex or lower density apartment complexes and other non-traditional designs such as zero lot lines, patio homes, and townhomes with lot sizes ranging from 4,500 to 7,500 square feet for single family developments. It is intended that development be conveniently serviced by neighborhood commercial and recreational facilities and have access to major collector or arterial streets.

**Density.** *Density refers to the ratio of the number of dwelling units per gross acre in a given area or development.*

**FAR (Floor Area Ratio).** *FAR is the total square feet of a building divided by the total square feet of the lot the building is located on.*

**Holding Capacity.** *The holding capacity is the number of dwelling units that a given area can accommodate based on its acreage and the development density permitted.*

*Figure 3-3: Existing General Plan Land Use Map*



**High Density Residential: 10-22 dwelling units/gross acre.** This category is intended primarily for multi-family apartment and condominium development in proximity to major arterial streets, commercial and recreational facilities, and employment centers.

**Office Residential 0.25-1.0 FAR (4-22 units/gross acre).** Surrounding much of the historical downtown are older homes, some of which are in the process of converting from conventional single family units to offices. To encourage the preservation of these structures, the Office Residential Designation allows for either office or residential uses and a mixture of offices and residential uses in these structures and has been applied to transitioning residential neighborhoods.

**Office 0.25-0.8 FAR.** This designation is intended for large non-retail, business and professional offices. Unlike the Office Residential designation, no residential uses would be permitted within an Office designation.

**Planned Office: 0.25-3 FAR.** Similar in approach to Planned Commercial, the Planned Office designation is located in the southwest quadrant of 12th Avenue and Lacey Boulevard. The notion of Planned Office is to make it distinctive and attract larger office tenants.

**Downtown Commercial/Mixed Use 0.5-3.0 FAR.** This designation has its own unique character as a pedestrian-oriented, concentrated area of retail, service, and office uses. It is intended to be a unique and focused commercial and entertainment center of the community while retaining a mix of commercial and residential uses. Multi-family residential may also be permitted.

**Neighborhood Commercial: 0.25-0.5 FAR.** This designation includes convenience commercial and neighborhood shopping centers, providing a range of necessary day-to-day retail goods and services serving a localized market. Neighborhood Commercial Centers are typically developed at about one-mile intervals on a single corner of the intersection of Collector Streets, or Arterial and Collector Streets. Development is limited to major anchor uses not exceeding 45,000 square feet, such as a supermarket, with other supporting retailers and services.

**Anchor Tenant.** *A large store, such as a department store or supermarket, that is prominently located to attract customers who are often expected to patronize the other shops in the shopping center.*

**Community Commercial: 0.25-0.75 FAR.** This designation includes a variety of commercial uses that serve both a large local area and, to some extent, the region. Typically, Community Commercial

development is integral to, and forms a commercial concentration with, surrounding offices, possibly regional commercial uses, and higher density development served by a combination of Collector and Arterial streets.

**Service Commercial: 0.25-0.5 FAR.** This designation includes a broad range of commercial activities which can include freeway (travel) oriented businesses, businesses which have both retail and service components, and other businesses which can be located in a commercial area and not create a nuisance or interfere with normal commercial activities. Business parks that are designed as clusters of buildings containing offices, warehouse, and storage areas are included in this designation.

**Mixed Commercial (4-22 Units/Acre) 0.25-0.5 FAR.** This designation is intended to allow a mixture of small commercial, office, and multi-family uses distinct to the 10th Avenue corridor between Grangeville Boulevard. and Lacey Boulevard only.

**Planned Commercial: 0.15-0.75 FAR.** This designation includes planned shopping centers, highway oriented retail uses, and enclosed recreation facilities. Planned shopping centers where retail and entertainment activities are concentrated and are intended to address market needs of the larger community and not compete with uses in the Downtown Commercial district. Several major anchors, along with supporting uses, would be expected to at a Planned Commercial Center. New PC areas could range between 20 and 100 acres.

**Planned Highway Development: 0.15- 0.75 FAR.** This designation is applied to non-agricultural designated land at the intersection of major state highways within the Planning Area of the city where adequate access exists to provide for services to the traveling public.

**Light Industrial: 0.25- 1.0 FAR.** This designation is intended for light industrial operations, and could include large office uses. Uses may include light manufacturing, warehousing, public and quasi-public facilities and operations, offices and administration facilities, research and development, and support business and commercial facilities. These areas are characterized by high truck traffic, greater employment density, and significant on-site material storage needs.

**Heavy Industrial: 0.3 - 2.0 FAR. This** designation provides for industrial parks, manufacturing, truck terminals, public or quasi-public facilities and structures, including utility operations, fabrication, processing,

assembling, warehousing, wholesale sales, and research and development activities. Incidental retail uses which have a direct relationship to the industrial uses will also be allowed. This Designation differs from Light Industrial in that outside processing and storage of materials may be permitted.

**Public Facilities: 0.10-1.0 FAR.** This designation includes schools, community parks, storm drainage basins, and other similar activities conducted on property owned by the County or other State, federal, or local agencies.

**Open Space & Conservation: 0.01-0.1 FAR.** The Open Space & Conservation designation identifies parks, pathways, storm drainage basins and water recharge areas, reservations for future freeway interchanges, areas designated for noise attenuation, and major landscape corridors along entryways into the city. While the Open Space & Conservation designation is intended primarily for public agency use, there are instances when private land may be designated Open Space. These would include land with storm drainage or other open space "easements" or private environmental reserves.

**Agriculture: 0.01 to 0.05 FAR.** Agricultural land use designations are limited in scope and purpose within the city. The primary reason for the designation is to provide a buffer between sensitive and potentially conflicting land uses. A good example of the application of this designation is the Hanford Airport runway approach and clear zone. Another purpose for the designation is to allow for the annexation of land to the city on which a Williamson Act Contract is still active.

**Urban Reserve.** The Urban Reserve prefix is applied to land within the City's Planning Area Boundary, which has an underlying land use designation in the General Plan. Development of the land is either not anticipated within the planning horizon, or has significant infrastructure constraints which must be addressed prior to development of the area. Removal of the Urban Reserve Designation in the industrial area should be based on the need for large sites and meeting the specific infrastructure needs of major employers of Hanford. Urban Reserve designations for residential and commercial areas promote efficiency and cost recovery of existing capacity in infrastructure systems before expanding or creating new competing systems.

### 3.3.2 Existing Plan Elements

Most of the elements that make up the current Hanford General Plan were last updated in the 2002 Hanford General Plan Update. However, the Housing Element has typically been prepared separately as a combined document with Kings County and the other three Kings County cities. Also, the Air Quality Element was prepared as a separate document in 2010.

Preparation of the 2035 General Plan will begin with the assumption that the Housing Element and the Air Quality Element will continue to remain standalone documents. The following describes the topics each element currently covers:

**Land Use.** The Land Use Element responds to issues, opportunities and constraints within the planning area established for Hanford. Major issues considered in this element include the location and timing of growth, resisting the premature conversion of agricultural lands, enhancement and preservation of the Downtown Business District, and balancing economic growth with urban growth

**Circulation.** This element provides a description of streets and roads, highways, transit services, and other transportation services within the City limits and the Planning Area. The element provides a plan for the transportation and transit services and facilities necessary to serve the development of the city as envisioned in the land use element.

**Open Space.** This element provides a description of the lands and waters that are unimproved and are to be devoted to natural uses through General Plan land use designations; a description of conservation efforts that will protect and maintain natural resources; and a description of existing and planned recreation sites and facilities.

**Hazards.** This element provides a description of activities and services that provide protection from natural and man-made hazards. This element contains policies and programs to reduce or eliminate the various hazards associated with earthquakes, fires, flooding, and other natural disasters. Overall, this element attempts to reduce the loss of life, injuries, damage to properties, and dislocations resulting from the hazards identified.

**Noise.** This element provides an analysis of community noise and the exposure to noise by citizens. The objective of the element's goals, policies, and programs is to protect citizens from noise that could jeopardize their health or welfare.

**Housing.** This element establishes City housing policy and an action plan for the provision of safe, decent, and affordable housing for all residents, regardless of income. It also provides an assessment of current and projected housing needs for all income groups.

**Public Facilities.** The Public Facilities and Services Element is an optional element of the General Plan that is designed to address the physical and fiscal impacts associated with development. Public facilities covered in this element include water, wastewater, storm drainage and solid waste. Recreation and open space facilities, such as parks, are addressed in the Open Space, Conservation and Recreation Element. Public facilities related to transportation and circulation are addressed in the Circulation Element.

**Air Quality.** Air quality elements are optional elements in California, except for jurisdictions located within the San Joaquin Valley. The Air Quality Element of the General Plan highlights the importance of air quality and conveys the interconnectedness of land use, transportation, and air quality. The element addresses greenhouse gases and climate change issues, as well as air pollutant emissions.

## 3. 4 Zoning

### 3.4.1 What is Zoning?

Zoning is the principal tool for implementing the general plan; it translates general plan land use recommendations and standards directly into enforceable regulations. In its most elementary form, zoning is the division of a community into districts and the specification of allowable uses and development standards for each of those districts. Typically, the zoning ordinance consists of text and a map delineating districts for such basic land uses as residential, commercial, and industrial. It also establishes special design regulations for parking, building setbacks and height, signage and other specific concerns.

State law requires that zoning ordinances be consistent with the general plan. A zoning ordinance is consistent with an adopted general plan only if the various land uses authorized by the zoning ordinance "are compatible with the objectives, policies, and general land uses and programs specified in such a plan" (Government Code Section 65860[a]). State law also provides that in the event that a zoning ordinance becomes inconsistent with a general plan by reason of amendment to such a plan, the zoning ordinance must be amended

within a reasonable time so that it is consistent with the general plan as amended (Government Code Section 65860 [a]).

Existing land uses that are contrary to the current zoned district or base district are considered "non-conforming uses". A "legal non-conforming use" is a use that was a lawful use prior to the adoption of the zoning code, but which currently does not conform with the regulations for the zone district in which the use is located (See Hanford Zoning Ordinance Section 17.54.200). Legal non-conforming uses, in most cases, are allowed to remain but cannot be expanded.

### 3.4.2 Zoning Classifications

The Zoning Ordinance for the City of Hanford includes 29 zoning districts (3 are combining districts) for residential, commercial, industrial, agricultural, open space, and institutional uses: The base districts establish the basic land use and property development regulations applicable to all property within the city. The combining districts provide additional regulations which are to be exercised over certain lands in order to meet special community health, safety, welfare, environmental or development objectives described by the General Plan. Combining district regulations apply in addition to the base district and other regulations of this chapter.

The base and combining districts currently established are:

**Base Districts**

- CO Conservation and Open Space District
- UR Urban Reserve District
- AG Agricultural District
- R One-Family Residential Districts:
    - R-1-20 (20,000 square feet minimum site area)
    - R-1-12 (12,000 square feet minimum site area)
    - R-1-8 (8,000 square feet minimum site area)
    - R-1-6 (6,000 square feet minimum site area)
- RM Multi-family Residential Districts
    - RM-3 (3,000 square feet minimum site area per dwelling unit)

  - RM-2 (2,000 square feet minimum site area per dwelling unit)

- Office Districts
  - O Office District
  - OR Office Residential District
  - PO Planned Office
- PF Public Facilities District
- C Commercial Districts:
  - NC Neighborhood Commercial District
  - DC Downtown Commercial District
  - CC Community Commercial District
  - PC Planned Commercial District
  - SC Service Commercial District
  - MC Mixed Commercial District
  - PHD Planned Highway Development
- I Industrial districts
  - LI Light Industrial District
  - HI Heavy Industrial District

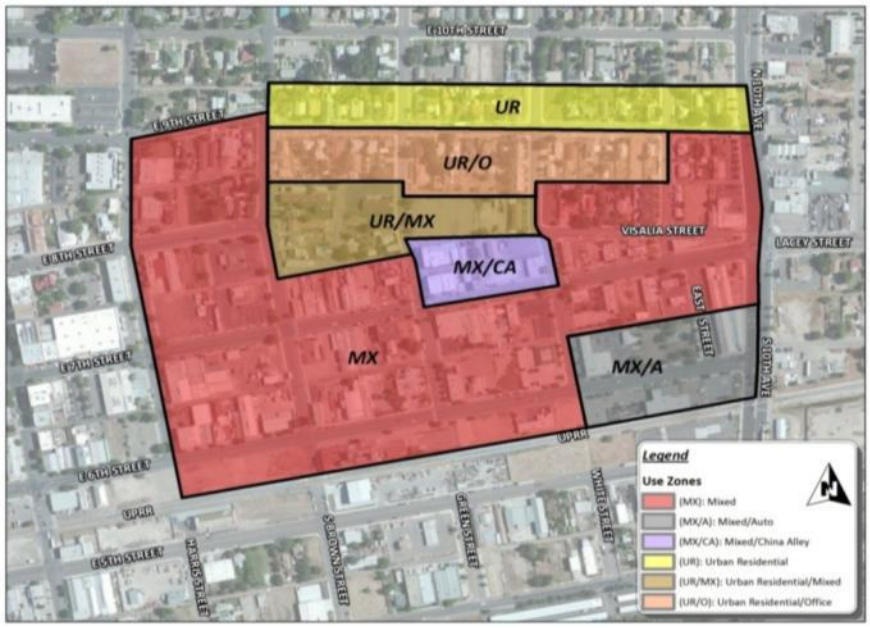
**Combining Districts**

- PUD Planned Unit Development Combining District
- H Historic Resources Combining District
- AH Airport Height Limit Combining District

## 3.5 Other City Plans

### 3.5.1 Existing Specific and Precise Plans

Often cities adopt plans for specific portions of their community that provide more detailed policies than the policies of the General Plan, which are usually meant to apply to the whole city. Hanford does not have any adopted specific plans, but it has adopted a Precise Plan (which is similar to a specific plan) for the eastern portion of the Downtown.




**Downtown East Precise Plan.** The Downtown East Precise Plan project is located on 69 acres adjacent to the historic core of downtown Hanford. The project study area is identified as Tenth Avenue to Harris Street (east-west), and the alley between 9th and 10th Streets to the San Joaquin Valley railroad tracks (north-south). The Plan and focused EIR were approved in June 2013.

The following commercial space and residential units represent the potential build-capacity over a twenty year+ horizon for new development in the Precise Plan area.

- Retail/Restaurants: 150,000 to 190,000 square feet
- Urban Grocers/Markets: 30,000 to 45,000 square feet
- Hotel: 90 to 100 rooms plus 20,000 square feet for meeting rooms
- Office (one floor above ground floor retail): 100,000 to 170,000 square feet
- 9th Street Office Residential/B&Bs: 14,000 square feet.
- Housing: 300 dwelling units at varying densities and various product types

### 3.5.2 Master Plans

Master plans are typically used to plan and approve the layout of new, large residential neighborhoods that may also include other uses like schools, parks, or small commercial areas. Master plans often result in better planned neighborhoods.

**Live Oak Master Plan.** Live Oak is a single-family residential project that includes park facilities and open space on 390 acres. Located in the southeastern portion of the city, the site is bounded on the north by Hume Avenue, on the south by Houston Avenue, and on the east by Lone Oak Slough. Single-family lot sizes are planned to range from 3,200 square feet to 12,000 square feet. The single-family residential design includes small lot alley-accessed housing. The larger lots will retain conventional vehicle access. Twenty-one acres of parkland and 31.6 acres of open space/conservation land use will be linked together via a system of connected linear parks and pedestrian trails. The project is expected to take 5 to 10 years to fully build-out in six phases. The plans were approved in 2007 and some construction has begun.

**Villagio Project.** The 302-acre Villagio Project is located at the northeast corner of 12th Avenue and Fargo Avenue. Villagio is planned to include 1,428 dwelling units, 135,000 square feet of neighborhood commercial space on 11.4 acres, an elementary school, church, storm water management basins, and open space and recreation areas. The project will be developed in phases based on the market conditions. It is anticipated that it will take 8 to 10 years to complete. The project was approved in 2009, but has not started development due to the slow economy.

**Highway 43/198 Commercial Center.** A 498,624 square foot commercial center is being planned on 58 acres at the northwest corner of Highway 43 and Highway 198. Lacey Avenue forms the site's northern boundary. The project will include two retail anchors, and shops. As of February 2014, the project was in the process of completing environmental review, but no public hearings had been scheduled.

### 3.5.3 The Dissolution of Redevelopment

The Hanford Community Redevelopment Agency was formed in November 1973. Redevelopment provided financial resources for city and county governments to improve blighted areas. Prior to 2012,

redevelopment areas received a larger share of the property taxes generated by growth in the project area, known as tax-increment.

Despite their success, the State eliminated redevelopment agencies in 2012. The city's Redevelopment Plan had included funding for redevelopment that was originally targeted for projects like the 1,100-acre Kings Industrial Park; the Downtown Enhancement Project; the Downtown East Precise Plan and China Alley restoration; implementing the Master Streetscape and Street Tree program; downtown façade improvement programs; and an affordable housing program.

Hanford, like many cities throughout California, is looking for alternative funding sources to fund these projects after the dissolution of the Redevelopment Agency. Prior to dissolution, redevelopment agencies received tax increment in property tax revenues annually and had outstanding bonds, contracts, and loans. Over time, as these obligations are paid off, schools and other local agencies will receive the property tax revenues formally distributed to redevelopment agencies.

## 3.6 Existing County and Regional Plans and State Regulations

### 3.6.1 Kings County General Plan

The Kings County Board of Supervisors adopted their Countywide General Plan in January 2010. The County's overarching priorities are to protect prime agricultural land, direct urban growth to existing cities and community districts, and increase economic and community sustainability.

County General Plan land use designations and policies are designed to encourage compact and community-centered development patterns that lower public service costs, make more efficient use of land, and discourage premature conversion of farmland to other uses. Policies embodied in the General Plan are designed to balance the protection of individual property owners' rights and property value with the efficient provision of public services to the community at large and long term preservation of natural resources. The County's General Plan area includes 1,279.7 square miles. Of that, 1,153.9 square miles or 90% is agricultural land.

### 3.6.2 San Joaquin Valley Blueprint

The San Joaquin Valley Blueprint involves the integration of transportation, housing, land use, economic development, and the environment to produce a preferred growth scenario to the year 2050. The Blueprint is based on a set of 12 principles. These principles are based on the core values of Valley residents identified early in the Blueprint process. The principles are:

1. Create a range of housing opportunities and choices
2. Create walkable neighborhoods
3. Encourage community and stakeholder collaboration
4. Foster distinctive, attractive communities with a strong sense of place
5. Make development decisions predictable, fair, and cost-effective
6. Mix land uses
7. Preserve open space, farmland, natural beauty, and critical environmental areas
8. Provide a variety of transportation choices
9. Strengthen and direct development towards existing communities
10. Take advantage of compact building design
11. Enhance the economic vitality of the region
12. Support actions that encourage environmental resource management

The eight San Joaquin Valley counties of San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kings, and Kern make up the regional planning area under the San Joaquin Valley Blueprint. Each County was responsible for developing their own individual local blueprint that is to be integrated into the larger eight-county Blueprint which addresses growth through the year 2050. Under the coordination efforts of the Kings County Association of Governments (KCAG), a Kings County Blueprint for urban growth was defined that emphasized city-centered urban growth, economic development, and agricultural preservation. This local Blueprint effort resulted in defining a Blueprint Urban Growth Boundary for each of the four cities and four unincorporated

community districts. Approved by the KCAG in 2008, the local Blueprint also calls for increasing residential density to at least 24% above status quo development trends to an average target density of 7.4 residential units per acre. by concentrating new development around areas with existing development and transportation network access. Implementation of the Blueprint is a "voluntary" program for local governments.

### 3.6.3 State Legislation Affecting Local Planning Efforts

In 2006 the State Legislature passed and Governor Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. This law's overall goal is to reduce the state's emissions of greenhouse gases (GHG) back to 1990 levels by 2020. In the fall of 2008 the Legislature passed and Governor Schwarzenegger signed Senate Bill (SB) 375, a bill that addresses the specific portion of GHG emissions related to the regional transportation planning process. SB 375 linked transportation planning and land use planning more closely and requires cities to prepare a Sustainable Communities Strategy (SCS). The General Plan Update will be required to include the SCS section, per SB 375.

**AB 32 – California Global Warming Solutions Act of 2006.** Assembly Bill 32, the California Global Warming Solutions Act of 2006, mandates that California reduce its greenhouse gas emissions to 1990 levels by 2020. For any project under CEQA, including a general plan update, the City of Hanford has an obligation to determine whether the environmental effects of the project, including the project's contribution to global warming, are significant.

As of early 2014, the City of Hanford is participating with KCAG and the City of Avenal to prepare a Climate Action Plan. This document is expected to be completed prior to completing of the General Plan Update, and will be utilized as part of the General Plan's environmental review.

**SB 375 – Sustainable Communities Strategies.** According to SB 375, the transportation sector is the largest contributor of greenhouse gas emissions, which emits over 40 percent of the total greenhouse gas emissions in California. SB 375 states, "Without an improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 requires the preparation of a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan

(RTP). The purpose of the strategy is to reduce greenhouse gas emissions by reducing passenger vehicle use and encouraging more mixed-use and compact development, increased walkability, and centralized accessible commercial areas. Both the SCS and the 2014 RTP are being prepared by KCAG as of early 2014.

Cities and counties can also promote more livable communities by expanding opportunities for transit-oriented development (TOD) so that residents minimize traffic and pollution impacts that result from using cars and trucks to travel to work, shopping, school, and recreation. TOD encourages walking and transit use without excluding the automobile. TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate transit use.

***Transit-Oriented Development (TOD)***

*A moderate to high density mixed-use residential and commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership.*

A well-designed, vibrant TOD neighborhood can provide many benefits for local residents and businesses, as well as for the surrounding region. Compact development near transit stops can increase transit ridership and decrease rates of vehicle miles traveled (VMT), thereby yielding a good return on transit system investments. TOD can also increase disposable household income by reducing transportation costs, reduce air pollution and energy consumption rates, help conserve resources and open space, assist in economic development, and contribute to the housing supply.

## 3.7 Community Design

An important aspect of a community's growth is its physical form and how this physical environment can contribute to a positive community identity. Visual images of places, both natural and manmade, contribute to the identity of a community. Through community design, Hanford can build and sustain an urban fabric that strengthens its assets and strives to bring coherence and an ongoing identity to this growing community.

### 3.7.1 Origins of Style and Character

Most of the original settlers in Hanford migrated from Europe. The California gold rush brought many more settlers from all over the United States. Chinese settlers arrived in the region to build the railroads. These various groups shaped the lifestyles and cultural models that shaped public life and influenced the pattern and style of Hanford's urban character. The architectural styles used in building also followed patterns prevalent in the eastern United States. The most prominent

styles of the last century included Queen Anne (Victorian), Romanesque, Classical Revival, Spanish Colonial Revival, and later the California Craftsman and Bungalow styles. Many of these building styles still exist in Hanford and many are often emulated in the newer communities. Many of the earliest historic structures in Downtown Hanford were made of wood, but several large fires led to later buildings being constructed or replaced with brick, stone, and tile.

The original 2-mile plat was laid out by surveyors from the Southern Pacific Railroad, within the previously delineated gridiron pattern of square mile blocks (sections), following the system set forth by the Land Ordinance of 1785. Deviations from these gridiron street patterns and architectural styles did not occur until well in the 20th century with the advent of curvilinear streets and cul-de-sacs.

### 3.7.2 Natural Landscape

The Planning Area consists of urban, agricultural, and grassland habitat areas nestled in a transitional zone in the Central Valley between the flat valley floor and the rolling Sierra Nevada foothills to the east. Looking in each direction from the edges of Hanford, views consist primarily of broad panoramas of agricultural land. Most of the land surrounding the northern and western part of the city is characterized by flat, dry valley grasslands scattered throughout, as well as grazing and other agricultural uses. The grasslands, grazing land, and large farms create open vistas at the northern and eastern edges of the city. This helps to maintain a small town feeling.

### 3.7.3 Downtown

The Historic Downtown District (the City's commercial and institutional core) is characterized by a variety of brick, wood frame, and stucco structures comprising the center of Hanford's commercial area. Land uses in this district consist of a mixture of commercial retail, office, public/institutional, and residential. The historic downtown is characterized by old historic buildings mixed with some newer buildings. The building facades consist of a variety of materials and textures, including brick and stucco with cut stone. Some buildings have a square and contemporary look that includes a flat roof and lack of ornate detail that is prevalent with the historic buildings. Many of these buildings are occupied by typical historic downtown uses, such as boutique shops, restaurants, and institutional buildings (e.g., library, government offices, and churches).

The streetscape consists primarily of 10-foot wide sidewalks and on-street diagonal and parallel parking along the street grid. The streetscape is accented by a variety of street furniture (including both simple and ornate benches), awnings, acorn streetlights, hanging business signs, arbors, and arbors.

One of downtown's prominent landmarks includes the historic Fox Theater. This building, with its landmark tower, architectural detailing, and visual prominence and heritage, forms an important part of Hanford's history. The building helps to denote the downtown core as do other buildings in its vicinity. Other landmark buildings include, but are not limited to, the Carnegie Museum, the Bastille (Old Kings County Jail), the Old Post Office, the Hanford Memorial Auditorium, the Kings County Courthouse, the 1890 Artesia Building, the Irwin Street Inn, Superior Dairy, the Old Episcopal Church of the Savior, and the 1905 IOOF (Independent Order of Old Fellows Building).


### 3.7.4 Downtown Residential Neighborhoods

Immediately surrounding the historic downtown core are residential neighborhoods situated on a grid street pattern with rear alleyways. These homes represent an eclectic mixture of architectural styles, including both traditional and contemporary styles, spanning several decades. Many of the older homes (i.e., Victorians and Bungalows) have large front porches and recessed garages. Many of the streets, especially those nearest to the downtown, are lined by mature street trees. The mixture of homes in terms of both age and style creates a unique and sometimes visually eclectic look. The condition of the homes range from block to block with some units being well-maintained, some in a state of disrepair, and others being of more recent construction. The east downtown area has a mix of older residences and apartment buildings, the apartment buildings lack traditional architectural character and are, in some instances, in a state of disrepair. Many of the blocks have alleyways while all of the blocks have sidewalks that connect the neighborhoods.

### 3.7.5 Suburban Residential Neighborhoods

Residential development in Hanford is characterized by mostly low density, single-family homes. These single-story and two-story homes are on relatively small lots with very shallow front yard setbacks to maximize the amount of common open space in the development. Many

of the homes have garages for two cars. Some suburban neighborhoods have multi-family dwellings located along arterials and collector streets.

### 3.7.6 Suburban Commercial Centers


**West Lacey Boulevard Retail Corridor.** With close to 1.7 million square feet of leasable space, the West Lacey Boulevard Retail Corridor is the largest concentration of retail facilities in Hanford and in Kings County. The area is accessible from Highway 198 to the south, and downtown Hanford is less than a half mile to the east. Government offices, the County jail, multi-family housing, and a medical center are also concentrated around this commercial center.

**Hanford Mall** is a 489,177-square foot enclosed regional mall, located in west Hanford at West Lacey Blvd and 12th Avenue. The center was built in 1993 and expanded in 1999. It includes five anchor stores and an eight-screen theatre, as well as a food court and restaurants. Hanford Mall is the only regional shopping center in Kings County.

**Centennial Plaza Shopping Center** is a 264,186-square foot retail shopping center located northwest of Hanford Mall. The center was built in 1991 and includes two anchor stores. Wal-Mart was originally located in Centennial Plaza but moved into a new building one-half mile south. The Wal-Mart store has been vacant for approximately seven years, but was recently purchased and there are plans for new retailers to occupy the space.

**The Marketplace at Hanford and Marketplace at Hanford West** is a 510,913-square foot retail shopping center located west of the Hanford Mall. The center includes six anchor stores. This large shopping center includes two big box home improvement stores.

**Hanford Town Center** is a 241.661 square foot open air shopping center located at the northwest intersection of Lacey Boulevard and 11th Avenue. One anchor is currently vacant in the Town Center.

### 3.7.7 Industrial Areas


**Kings Industrial Park** comprises 1,100 acres of industrially-zoned land, with parcels ranging in size from 3 to 105 acres. The industrial park is bounded by 10th Avenue on the east, 11th Avenue on the west, Houston Avenue on the north, and half of Jackson Avenue on the south. Interior streets include Crown Avenue, Iona Avenue, Industry Avenue, Energy Street and Power Way. Industrial park streets are in good condition and are maintained by the City. The industrial park is

located two miles south of Highway 198, which connects to Interstate 5 and State Highway 99. Most parcels have access to the Burlington Northern Santa Fe railroad, with spurs and sidings currently available.

In 2011, the City developed an Industrial Park Study that evaluated existing conditions and recommended a marketing plan to accelerate industrial development for Kings Industrial Park. Fourteen parcels totaling 319 acres and ranging in size from 2.5 acres to 58.3 acres were available for sale as of 2011.

**East Lacey Boulevard** consists of several light industrial-use parcels totaling approximately 100-acres. This 2 mile stretch of roadway has a variety of land uses, including motels, a bowling alley, veterinary clinic and kennel, retail, bars, and restaurants totaling 150-acres. The balance of E. Lacey Blvd is vacant land.. Lacey Boulevard served as the east-west connector to Visalia before State Highway 198 was relocated, and many of the current businesses still remain. East Lacey Blvd east of State Route 43 becomes more rural in nature with mature eucalyptus trees lining both sides of the roadway. Assuming a Hanford high speed rail station does become a reality, this portion of E. Lacey Blvd is likely to become a primary access corridor to the planned station.

**The 4th and 5th Street Corridors** south of downtown and north of the railroad is one of the earlier industrial sections of the city. The Lacey Milling Company was founded there in 1887 and still produces wheat flour for most of the tortillas in the Central Valley. Marquez Brothers International, Inc. located here has produced and distributed authentic Mexican-style dairy products, meat items, canned and dry goods since 1981. Approximately 33 acres of the 4th and 5th Streets Corridor area are devoted to industrial land use. There are 45 acres that are vacant and zoned for industrial use.

# 3.8 Architectural Character

## 3.8.1 Non-Residential Architecture Styles

An 11-block area of downtown Hanford, roughly between Sixth and Ninth, Redington and Harris streets, contains a remarkable collection of well preserved historic buildings representing a variety of periods and both public and private use. These include the Old Phone Building; Hanford Theater; Kings County Courthouse; Sheriff's Office and Jail; Taoist Temple; and the Hanford Carnegie Museum, one of California's few Richardson Romanesque Carnegies, a style more typical of early East Coast Carnegies. It was listed on the National Register of Historic Places in 1981. There are six identifiable non-residential architectural styles in this area.

**Classical Revival.** Often associated with governmental, institutional uses, and banks, some fine examples of classical revival architecture grace the Downtown. These include the Old Courthouse, the Civic Auditorium, the Veteran's Building, and the former Post Office at Douty and 8th Streets. Buildings in this style are generally symmetrical, utilize simple massing forms, and rely on familiar decorative elements such as porticos, large columns, pilasters, pedimented windows, arches, friezes, and domes. The buildings are generally masonry structures of monumental proportions, using terra cotta, brick, and stone materials.

**Romanesque Revival.** The Romanesque style is actually a less stringent variation of Classicism – the rules governing proportion in true Classical Revival style are relaxed in Romanesque but still exhibit similar decorative elements. This style is accentuated by heavy massing that gives the impression of permanence and immobility. Hanford has fine examples of this style, namely the old Carnegie library and the Bastille.

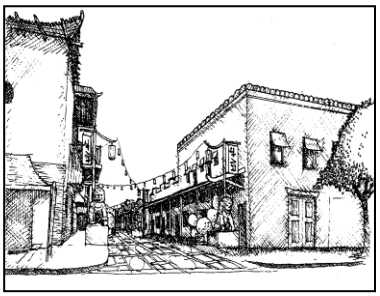
**Spanish Revival and Mission Revival.** Very popular in California due to its Spanish heritage and Spanish missions, the style is identified by use of classical elements such as arches, columns, prodigious use of stucco walls, low-pitched clay tile, shed, or flat roofs, and terracotta or cast concrete ornaments. The Fox Theater is a fine example of Mission Revival architecture.

**Moderne.** Moderne is a streamlined, clean style that was popular in the 1940s and 1950s. This style is mostly associated with automobiles, using sleek horizontal lines with minimal ornamentation. Materials often include stucco, metals such as stainless steel, and concrete block.

Decorative moldings and elaborate trim are eliminated or greatly simplified, giving way to a clean aesthetic where materials meet in simple, well-executed joints. An emphasis is on rectangular forms and horizontal and vertical lines. The style may also include low, horizontal massing, flat roofs, and in some cases, broad roof overhangs. The auto dealership at 7th and Harris streets and the old Gas Company Building on Douty Street are fine examples of this architectural style.

**Urban Commercial.** This is a predominate style of buildings in the downtown commercial core of Hanford. It was a transformation of the old west building style that used more fire-proof materials like brick and stone. This style is marked by "pedestrian friendly" elements such as large window storefronts, recessed entries, flat roofs, canopies and awnings.

**Chinese Rural Architecture.** China Alley provides its particular "style" within the overall architectural context of Hanford. Historic China Alley has distinguishing characteristics that can also be found in other rural California communities. The following characteristics are typical of historic buildings on China Alley include:



- One- or two-story rectangular building
- Symmetrical front facing facades
- Two parallel gables with ornate cornices, often decorated with carvings of fish or dragons
- Stepped parapet walls or projecting and decorative cornices
- Large porch (gallery) often under a covered balcony
- Uses of simple support brackets on gallery or porch columns
- Pronounced quoins at building corners that extend the entire height of the building
- Storefronts with simple or tiled wainscot

### 3.8.2 Residential Architecture Styles

There are 7 identifiable residential architectural styles in Hanford. Most examples are found in the historic residential areas north of Downtown, although some more recently developed neighborhoods have also utilized these styles.

**Craftsman.** The Craftsman style originated in Southern California in the early 20th century, and quickly became very popular along the West Coast, influenced by rapid industry and population growth. Craftsman homes featured construction techniques inspired by the Arts and Crafts movement, using natural materials and techniques to highlight the true qualities of these materials, such as staining wood rather than painting it. Common features include handcrafted wood, glass, and metal work, and objects that are simple and elegant, yet highly functional. Elements of design include:

- Low-pitched, gabled roof with a wide overhang
- Deeply overhanging eves
- Front porches with thick columns and exposed beams.
- Hand-crafted wood and/or stone work

**Bungalow.** Commonly considered the pre-cursor to the Craftsman, Cottages and Bungalows are both architectural styles that describe a small, cozy, single-family dwelling. Historically, these types of homes were more commonly found in rural or semi-rural areas. The footprint of these homes is typically small with low-pitched gabled roofs and small covered porches at the entry. The Bungalow style became so popular in the early 1900s that Sears and Roebuck sold ready-made kits to homebuyers through their mail order catalog. Elements of design include:

- Small, single-family living space
- Wood frame
- Low-pitched roofs
- Sheltered interior with small spaces
- One to one-and-a-half stories

**Victorian.** Victorian architecture was at its most popular at the turn of the 19th century. Victorian homes were popular because much of the building materials, including detail work, was done by machine and could be easily shipped around the country by train. There are multiple styles within the Victorian theme. The Queen Anne style is highly ornate, asymmetrically built with cross-gable rooflines and towers, and highlighted by coquettish detailing and eclectic materials. Queen Anne-style Victorian homes were very popular, and originally came painted in

a variety of bright colors. The Folk-style Victorian is a simplified version of the Queen Anne; it typically had less ornamentation, was built symmetrically, and was more accessible to the middle class. Elements of design include:

- Wood construction
- Steeply pitched roof
- Textured shingles
- Front porch, towers, recessed balconies
- Multiple stories
- Highly detailed exteriors; ornate trims
- First home design to incorporate attached garage

**Tudor.** Tudor style homes originated in England and experienced their American revival in the early 1900s. These homes come in varying sizes, but are all identifiable by their unique look. Tudor homes most notably have steep-pitched, interlocking gabled roofs. They are generally built from stone or bricks, with a façade of stucco and exposed decorative timbered framing. Another common feature is a large central fireplace which was designed to function as the primary heating source for the Tudor home. Elements of design include:

- Steep-pitched, intersecting gabled roofs
- Stone or brick construction
- Exposed decorative timbered framing
- Large stone chimney and fireplace
- Narrow windows grouped together
- Arched (Tudor) entryway

**Spanish Colonial Revival.** The Spanish Colonial Revival style got its beginnings at the 1915 Panama-California Exposition in San Diego. The style features low-pitched roofs with little or no overhang covered with red roofing tiles. These houses were almost always wood frame with smooth finish stucco siding. The use of the arch was common, especially above doors, porch entries and main windows. Other characteristics include:

- Asymmetrical massing

- One or two stories
- Complex, multiple intersecting roof elements that complement the asymmetrical massing.
- Side gable or cross-gabled roof; sometimes hipped
- Flat roof with short parapet on some smaller examples
- Lighter colored stucco finish providing a contrast to the darker colored roof
- Front porches, where they exist, are typically recessed behind an open arcade, off-center from the front door
- Balconies that may be open or roofed
- Use of decorative tiles, decorative sconces, door knockers, hinges, hardware
- Occasionally tower elements

**Monterey.** The Monterey style is derived from Boston merchant Thomas Larkin's 1850s residence in Monterey, California. The style updates Larkin's vision of a New England Colonial with an Adobe brick exterior. The use of adobe reflected an element of Spanish Colonial houses common in the Monterey area at the time. Larkin's design also established a defining feature of the Monterey style: a second-floor front-facing balcony, sometimes turning the corner to side elevations as well. Monterey Revival homes typically featured balcony railings in iron or wood; roofs are low pitched or gabled and covered with shingles--variants sometimes feature roof tiles--and exterior walls are constructed in stucco, brick, or wood. Other characteristics include:

- Rectangular or L-shaped floor plans
- Always two stories
- Smooth or sand finished stucco
- First and second stories may use different materials
- Low-pitched side gable; may have front-facing cross gable
- Eaves with little or no overhang
- Composition shingles or red clay tile

- A second-story partial or full width balcony, usually cantilevered; the balcony is generally covered by the principal roof

**Ranch.** Generally referred to as the "California Ranch", this single-story sprawling home became popular in post-war America. The home takes cues from modernist homes with its open layout, indoor/outdoor entertaining spaces, and large windows. The ranch/rambler style house experienced the height of success in the 1950s and 1960s with the boom of the suburbs, and can be found all over the United States. The ranch/rambler style home was also one of the first architectural styles to incorporate a garage into the housing design to accommodate the needs of the modern American family. Elements of design include:

- Influenced by modern architecture with open living spaces
- Single story with large, wide footprint
- Outdoor entertaining space
- Building materials dependent on region: wood, stucco, or brick
- Large windows

# CHAPTER 4

# TRANSPORTATION & CIRCULATION

# CHAPTER 4 TRANSPORTATION & CIRCULATION

## 4.1 Introduction

A circulation element describes of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, airports, and railroads. Commencing in January 2011, the City of Hanford is required to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan. A balanced multi-modal transportation network is discussed in further detail in other sections of this chapter.

This chapter provides a description of Hanford's existing transportation and circulation resources. It also discusses current levels of service on roadways/highways, and provides an overview of the Kings County Regional Transportation Plan.

This chapter is divided into the following sections:

- Streets and Highways
- Public Transit
- Private Shared Transportation
- Bicycles and Trails
- Aviation
- Rail Service

## 4.2 Streets and Highways

### 4.2.1 Roadway Classification System

To identify the specific function of roadways in terms of access and mobility, the following classification system for streets and highways is commonly used:

**State Highways.** State Highways and Freeways place much greater importance on moving traffic than providing access to adjacent land. Often direct access to land is limited or prohibited.

**Arterial Streets.** Arterials provide a high level of mobility with limited access to adjacent properties. Arterials connect highway interchanges and support the principal roadway system. Arterials provide access to collectors and some local streets.

**Collector Streets.** Collectors provide a balance of land access and mobility functions within residential, commercial, and industrial land uses. Collectors connect local streets to arterials.

**Local Streets.** Local streets provide direct access to adjoining land and connections to collectors.

**Alleys.** Alleys are public rights-of-way, at the rear or side of property, permanently reserved as a secondary means of vehicular or pedestrian access to abutting property. Alleys typically only occur in and near the downtown that was part of the original plat of the city and are not currently used in contemporary development projects.

### 4.2.2 Highways

Descriptions of the existing State highways are provided below.

**State Route 198.** State Route 198 (SR 198) is an east–west State highway that begins at U.S. Route 101 (US 101) south of King City and ends in Sequoia National Park. It connects the California Central Coast to the San Joaquin Valley, running through Hanford and Visalia. SR 198 intersects the major north-south routes in the Central Valley, including Interstate 5 (I-5), and State Routes 41, 43, 33, and 99. The portion of SR 198 through Hanford was upgraded to a 4-lane freeway in the 1960s. In 2012, the portion from Hanford to SR 99 was upgraded to a 4-lane expressway. Interchanges within the Planning Area are located at Highway 43, 10th Avenue, 11th Avenue, 12th Avenue, and 13th Avenue.

**State Route 43.** State Route 43 is a north–south state highway running roughly parallel to SR 99, connecting the towns of Shafter, Wasco,

Corcoran, Hanford, and Selma. Arterial access is limited within the Planning Area to intersections at Flint Avenue, Fargo Avenue, Tenth Avenue, Grangeville Boulevard, Lacey Boulevard, Hanford-Armona Road, and Houston Avenue.

**Kings County Association of Governments (KCAG).** The KCAG is the State-designated regional transportation planning agency (RTPA) recognized by the State's Business, Transportation, and Housing Agency.

***Kings County Association of Governments (KCAG)***

*The KCAG is a Council of Governments with the responsibility to address public policy matters which span across multiple jurisdictions. The members of the KCAG are the cities of Avenal, Corcoran, Lemoore and Hanford and the County of Kings.*

KCAG is responsible for:

- administering the Regional Transportation Plan;
- preparing a Regional Transportation Improvement Program and the Federal Transportation Improvement Program;
- reviewing the State Transportation Improvement Program and other state transportation programs;
- monitoring local public transit operations;
- overseeing federal transportation grant proposals; and
- administering the Local Transportation Fund and State Transit Assistance funds.

Other objectives of KCAG include facilitating planning on a regional scale with an emphasis on transportation, finding and researching problems in urban growth, and considering common concerns of its constituent agencies. KCAG aims to tackle the issues that the members have in common but could not otherwise handle individually.

The 2011 Kings County Regional Transportation Plan (KCRTP) identified numerous policy objectives to improve the transportation network in Hanford and Kings County. More than 100 regional transportation policy objectives were approved by the Transportation Policy Committee (TPC) of Kings County Regional Transportation Authority. Three key improvements were identified in the Hanford area:

- Upgrade Highway 198 at 13th Avenue Interchange
- Construct Highway 198 Interchange. at 9th Avenue
- Widen Highway 43 from Fresno Co. Line to the Tulare County Line to 4 Lane Expressway

The 2014 RTP is currently in the process of being prepared. Hanford's General Plan Update efforts will need to coordinate with the 2014 RTP to ensure policy consistency.

In 2014, KCAG is in the process of preparing a Sustainable Communities Strategy in accordance with SB 375. KCAG is also administrating the development of a Countywide Climate Action Plan in which the City of Hanford is participating.

### 4.2.3 Arterial Streets

Hanford's street system consists of a combination of roadways that have served the city for decades and newer streets constructed to serve developing areas. Figure 4-1 shows the Arterials and other street types serving Hanford.

***Table 4-1: Existing Arterial Streets***

| ***North/South Arterial Streets*** | |
|---|---|
| ***Street Name*** | ***Limits*** |
| *13th Avenue* | *Houston Avenue to Fargo Avenue* |
| *12th Avenue* | *Idaho Avenue to Flint Avenue* |
| *11th Avenue* | *Jackson Avenue to Flint Avenue* |
| *10th Avenue* | *Jackson Avenue to Hwy 43* |
| *9th Avenue* | *Houston Avenue to Lacey Boulevard.* |
| ***East/West Arterial Streets*** | |
| ***Street Name*** | ***Limits*** |
| *Jackson Avenue* | *11th Avenue to 10th Avenue* |
| *Idaho Avenue* | *12th Avenue to 10th Avenue* |
| *Iona Avenue* | *12th Avenue to 10th Avenue* |
| *Houston Avenue* | *13th Avenue to SR 43* |
| *Hanford-Armona Road* | *13th Avenue to 10th Avenue, 9th Avenue to SR 43* |
| *3rd Street (1 way)* | *11th Avenue to 10th Avenue* |
| *4th Street (1 way)* | *11th Avenue to 10th Avenue* |
| *6th Street* | *11th Avenue to 10th Avenue* |
| *7th Street* | *Mall Drive to 10th Avenue* |
| *E. Lacey Boulevard* | *10th Avenue to SR 43* |
| *W. Lacey Boulevard* | *13th Avenue to Irwin Street* |
| *Grangeville Boulevard* | *13th Avenue to SR 43* |
| *Fargo Avenue* | *13th Avenue to SR 43* |
| *Flint Avenue* | *12th Avenue to SR 43* |

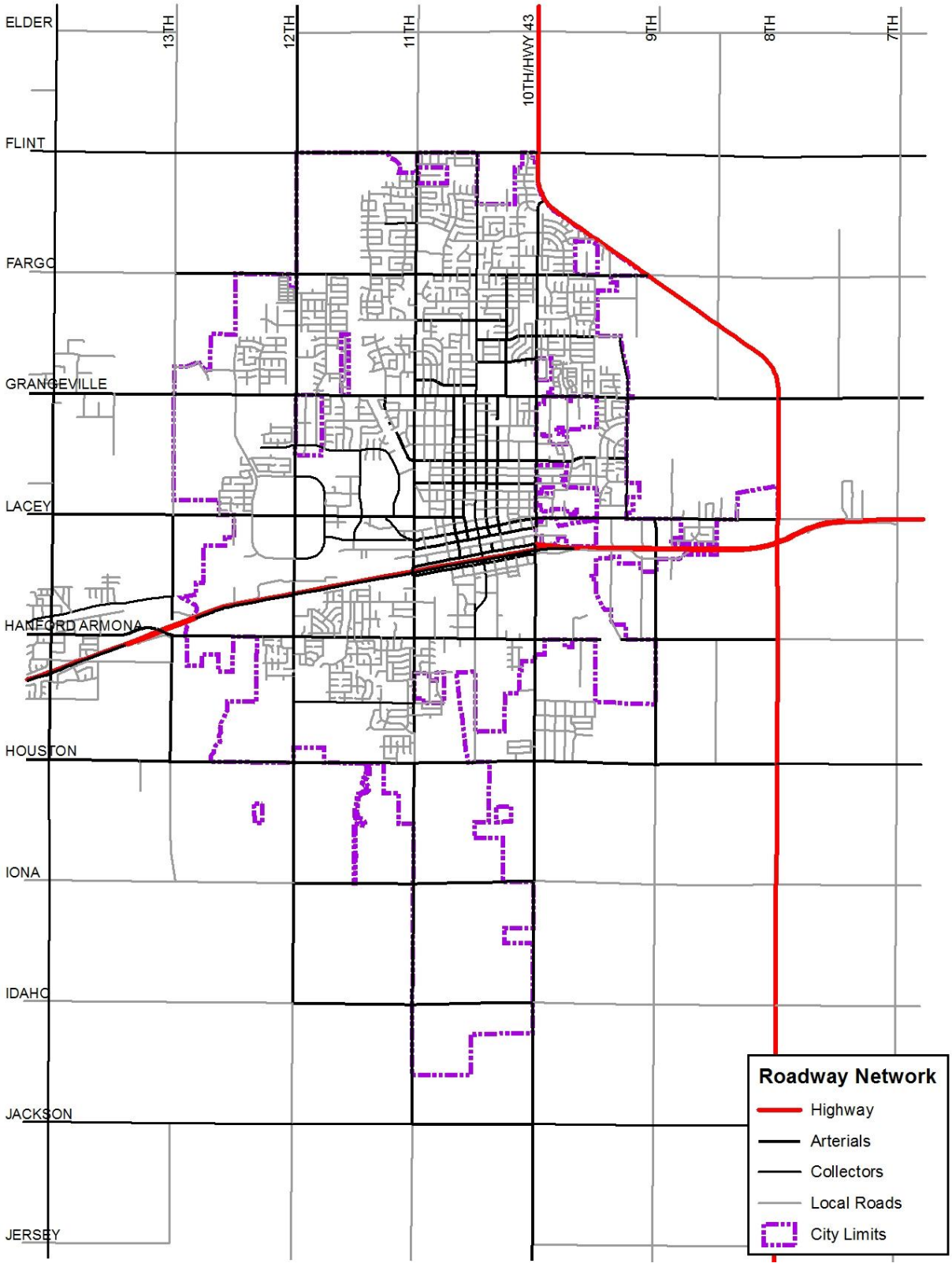
### 4.2.4 Collector Streets

Hanford has 12 north/south collector streets and 7 east/west collector streets. They are listed in Table 4-2.

***Table 4-2: Existing Collector Streets***

| ***North/South Collector Streets*** | |
|---|---|
| ***Street Name*** | ***Limits*** |
| *Campus/University* | *6th Street to Grangeville Boulevard* |
| *Greenfield Street* | *Lacey to Centennial Drive* |
| *Rodgers Street* | *11th Avenue to Mallard Way (potentially to Cortner St.)* |
| *Redington Street* | *4th to Grangeville* |
| *Irwin Street* | *4th Street to Grangeville* |
| *Harris Street* | *6th to Grangeville* |
| *Fitzgerald Lane* | *Grangeville to Fargo Avenue* |
| *Douty Street* | *Hanford-Armona Road to Flint* |
| *Kensington Street* | *Grangeville to Fargo* |
| *9-1/4 Avenue* | *Lacey to Leland Way* |
| *Centennial Drive* | *Lacey to Heather Lane* |
| *Glacier Way* | *Fargo to Flint Avenue* |
| ***East/West Collector Streets*** | |
| ***Street Name*** | ***Limits*** |
| *Hume Street* | *12th Avenue to 11th Avenue* |
| *3rd Street* | *10th Avenue to 9th Avenue* |
| *Garner Street* | *Lacey to 11th Avenue* |
| *Ivy Street* | *10th Avenue to Eleventh Avenue* |
| *Florinda Street* | *11th Avenue to 9-1/4 Avenue* |
| *Malone Street* | *Douty Street to 10th Avenue* |
| *McCreary Street* | *11th Avenue to Douty Street* |

*Figure4-1: Roadway Network*



### 4.2.5 Current LOS Standards

The City of Hanford utilizes the standardized level of service (LOS) system to measure traffic congestion. LOS is a scale that measures the amount of vehicular traffic that a roadway or intersection accommodates, based on such factors as maneuverability, driver dissatisfaction, and delay at intersections.

Levels of service are represented by a letter scale that ranges from LOS A to LOS F. As shown in Table 4-3, LOS A represents the fastest flow of traffic and LOS F represents significantly congested conditions.

The City has adopted an overall LOS standard of C with peak hour LOS D acceptable in some instances. Due to the nature of the roadway system, improvements to existing developed areas are extremely difficult. As a result, there may be instances where a lower LOS is acceptable.

The City currently operates at acceptable LOS C or better at peak hour level of service, except for the following areas:

- Lacey Boulevard, between 11th Avenue and 12th Avenue carries a range of traffic volumes. As of 2002, the highest volumes are near 11th Avenue and that segment operates at LOS "D". Nearer 12th Avenue, the LOS is at the lower range of "A". The EIR that will be conducted for the General Plan Update will reflect current LOS standards.
- As of 2002, the portion of Fargo Avenue between 10th and 11th avenues carries about 7,500 ADT, which results in LOS D. The EIR conducted for the General Plan Update will reflect current LOS standards.

Recent legislation (SB 743) requires OPR is also required to recommend alternate metrics to measure transportation impacts for purposes of reviewing the environmental effects of a project. It is still unknown just how OPR will implement this law, and how it will apply to long range planning, such as the adoption of General Plans.

***Office of Planning and Research (OPR)***

*OPR is a department in the State of California that provides direction and guidance on the implementation of planning and CEQA law. It also serves as the clearinghouse for review of CEQA documents that potential have regional or statewide impacts.*

*Table 4-3: Level of Service Designations*

| | | | Street Segments | Intersections | |
|---|---|---|---|---|---|
| **LOS** | **Conditions** | **Description** | **Volume to Capacity Ratio** | **Unsignalized Delay (seconds)** | **Signalized Delay (seconds)** |
| **A** | Free Flow | Free flow with no delays. Users are virtually unaffected by others in the traffic stream. | .00 - .59 | ≤ 10 | ≤ 10 |
| **B** | Stable Operations | Stable traffic. Traffic flows smoothly with few delays. | .60-.69 | | |
| **C** | Stable Operations | Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays. | .70-.79 | > 20 – 35 | > 15 – 25 |
| **D** | Approaching Unstable | Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours. | .80-.89 | > 35 – 55 | > 25 – 35 |
| **E** | Unstable Operations | Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing. | .90-.99 | > 55 – 80 | > 35 – 50 |
| **F** | Forced Flow | Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing. | 1.00+ | > 80 | > 50 |
| Source: Transportation Research Board, Highway Capacity Manual 2000, National Research Council, 2000. | | | | | |

### 4.2.6 Planned Roadway Improvements

Currently, the City has plans for construction / reconstruction of three major streets. Construction is planned to begin in 2014 on two of these streets and E. Lacey Boulevard is proposed for future realignment.

**10th Avenue Widening / Reconstruction,** from Third Street to Hanford-Armona Road is currently out to bid. Construction is anticipated to begin March 2014. Roadway width will increase from two to four travel lanes with a center turn lane.

**Campus Drive** is being extended from Sixth Street south across the SJVR tracks with new at-grade crossing of RR. Construction is anticipated to begin February 2014.

**E. Lacey Boulevard** is proposed to be realigned at the Lacey / SR 43 intersection. The intersection will be relocated north approximately 300 feet, as anticipated by the 2002 General Plan and as part of mitigation improvements for a proposed 500,000-square foot commercial development. As of February 2014, the EIR for this project was going through the public review process.

### 4.2.7 Complete Streets and Traffic Calming

On September 30, 2008 Governor Arnold Schwarzenegger signed Assembly Bill 1358, the California Complete Streets Act. The Act states:

*"In order to fulfill the commitment to reduce greenhouse gas emissions, make the most efficient use of urban land and transportation infrastructure, and improve public health by encouraging physical activity, transportation planners must find innovative ways to reduce vehicle miles traveled (VMT) and to shift from short trips in the automobile to biking, walking and use of public transit."*

The legislation impacts local general plans by adding the following language to Government Code Section 65302(b) (2) (A) and (B):

*(A) Commencing January 1, 2011, upon any substantive revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.*

*(B) For purposes of this paragraph, "users of streets, roads, and highways" mean bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.*

The City of Hanford currently utilizes many of these traffic calming strategies within its streets. These include: narrower travel lanes, raised

medians, planting strips, and block crossings. The intention of these measures is too slow down or reduce vehicular traffic and/or improve pedestrian and bicycle safety.

Currently, there are no existing roundabouts in Hanford or in Kings County. Caltrans is exploring the use of roundabouts at a number of State highway intersections, including SR 43/SR 137 in Corcoran. A 2007 study of 55 roundabouts in the U.S. found a 35% reduction in accidents and a 90% reduction in fatal accidents when intersections with stop signs or signals were converted to roundabouts. It costs about the same to construct a roundabout as part of a new development as it does to build traffic signals, and requires significantly less maintenance than traffic signal intersections. The Villagio project, a 320-acre master planned community in northwest Hanford, is proposed to build a number of roundabouts as part of the approved overall development.

## 4.3 Public Transit

### 4.3.1 Kings Area Rural Transit (KART)

The largest provider of public transit services within Kings County is the Kings County Area Public Transit Agency (KCAPTA). KCAPTA is an intra-governmental agency with representatives from Avenal, Kings County, Hanford and Lemoore, and is responsible for the operation of the Kings Area Rural Transit (KART). KART offers scheduled daily bus service from Hanford to Armona, Lemoore, the Lemoore Naval Air Station, Visalia, Corcoran, Stratford, Kettleman City and Avenal. Ridership between Hanford and Lemoore is about 17,000 per month. All KART bus routes begin and end at the KART Terminal located at 504 W. 7th Street Hanford, California, just west of the Hanford AMTRAK station.

There are currently 8 fixed routes that circulate throughout the city and operate as early as 6:30 a.m. until as late as 9:00 p.m. The Fresno route, with service every Monday, Wednesday and Friday, includes stops at Children's Hospital, Veterans Hospital, Community Regional Medical Center, St. Agnes Medical Center, and Kaiser Permanente Medical Center, as well as access to the downtown area with a stop at Fulton Mall. KART also offers limited service on Saturdays. In addition, KART provides regular transportation service to Visalia Monday through Friday.

KART began a scheduled fixed route bus service for Hanford in July of 1991. Figure 4-2 shows the current routes. The scheduled bus service operates Monday through Friday from 7:30 a.m. to 11:00 p.m. Expansion of the service is planned as new retail developments are built. West Hills College in Lemoore is served by the system, as are educational institutions in Visalia, including College of Sequoias, Galen College, San Joaquin Business College, and Chapman College.

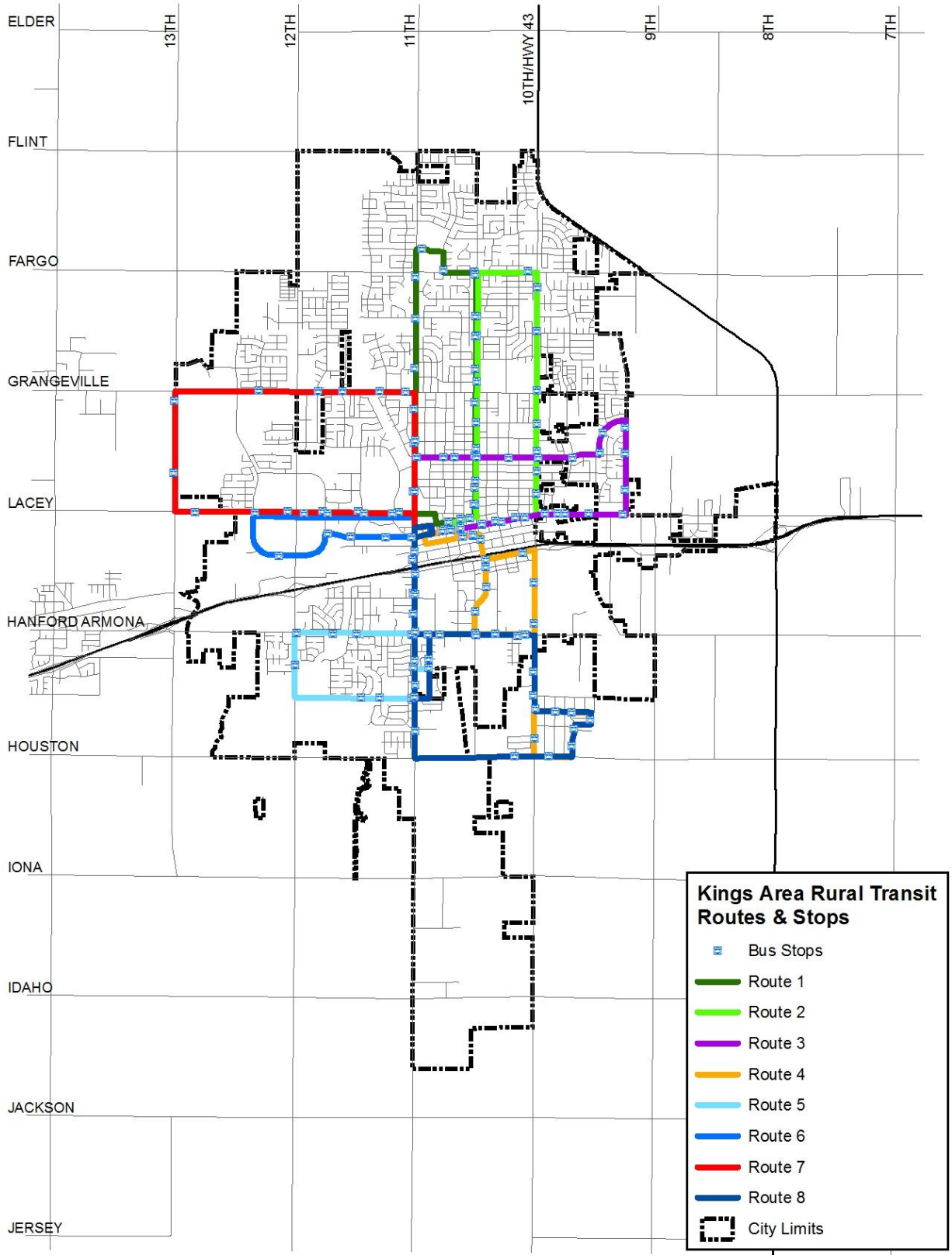
### 4.3.2 KART Dial-A-Ride Service

Dial-A-Ride is an origin-to-destination service available to eligible residents of Hanford, Lemoore, Armona and Avenal. The KART dial-a-ride operates from 7:00 a.m. to 11:00 p.m. Monday through Friday and on Saturday, from 9:00 a.m. to 4:00 p.m. Ridership for KART dial-a-ride in Hanford for calendar year 2000 totaled over 65,000 trips per month (annual ridership is 836,000).

### 4.3.3 Park-and-Ride Lots

Park-and-Ride lots provide a meeting place where drivers can safely park and join carpools or vanpools or utilize existing public transit. Park-and-Ride lots are generally located near community entrances, near major highways or local arterials where conveniently scheduled transit service is provided. Lots are designed exclusively for commuters or they can consist of an area of parking spaces in complementary land uses such as shopping centers and churches. Hanford has one Park-and-Ride facility located at the northeastern entrance of the city at 10th Avenue and SR 43. There are a number of informal Park and Ride lots located in various communities throughout Kings County and served by KCAPTA vanpools. One of the largest is the old Wal-Mart parking lot located on the northwest corner of 12th Avenue. and Lacey Avenue in Hanford. Approximately 30 vanpools use this site, resulting in up to 250 vehicles being parked per day.

*Figure 4-2: KART Bus Routes*

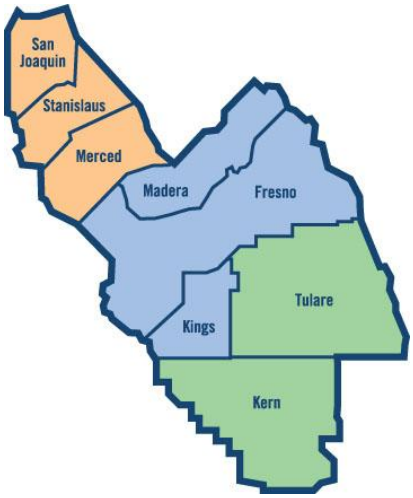


The San Joaquin Valley Air Pollution Control District provides funding for public transportation kiosks and the construction of Park-and-Ride lots. The purpose of this program is to encourage commuter rideshare activities as an alternative to single occupant vehicle (SOV) commutes. Funds are available for eligible projects that meet specific program criteria on a first-come, first-serve basis until the program funds are exhausted.

### 4.3.4 KART Vanpool Program

KART defines vanpooling as 7 to 15 persons who commute together in a van-type vehicle and who share the operating expenses.

The KART vanpool program provides passengers with reliable transportation to and from work. The vanpool program is not only to provide safe travel to work but to provide alternative transportation options which would ultimately reduce the amount of vehicles on the road. Vanpooling is somewhat different than carpooling, though it is based upon the same principle: reducing single occupant commuting.




KART established a vanpool program for riders to the Corcoran and Avenal State prisons in 2001 and has purchased additional vans to implement new vanpools. The program has become very successful with 180 vans in service in 2009 and extends in the areas of Tulare, Kings, Kern, Madera, Ventura, Monterey, and Fresno counties. CalVans has grown to include more than 200 vanpools tailored to meet the needs of commuters, plus nearly 150 vans especially designed for farm workers.

The San Joaquin Valley Air Pollution Control District (SJVAPCD) offers Vanpool Voucher Incentive Programs. The Program is meant to encourage commuter rideshare practices among frequent long distance riders in the San Joaquin Valley.

## 4.4 Private Shared Transportation

### 4.4.1 Taxis

Private transit services are currently provided in Hanford by seven taxicab companies (Marathon Cab, Mendez Brothers Taxi, Taxi Steve, Central Valley, Ramirez Cab, Kings Cab, and the recently approved Circadian Cab). The City Council determines the number of taxi cabs allowed to operate in Hanford.

### 4.4.2 Privately Owned Bus Service

Since December 1, 2012, Orange Belt Stages has provided bus service to serve Hanford. Passengers arrive and depart at the Hanford AMTRAK station in downtown Hanford. Orange Belt Stages offers daily scheduled bus service (Sunday through Saturday) to Goshen and Visalia, Paso Robles and San Luis Obispo, and the beach cities of Grover Beach and Santa Maria. The service to Paso Robles and San Luis Obispo provides a link through Greyhound connections. Service to Grover Beach provides connecting service through AMTRAK.

Orange Belt Stages provides service between Kings County and connections to Tulare County and the Central Coast via Paso Robles, as well as stops in Kern County, San Bernardino County, and Las Vegas. This nationwide charter service, which has been in business since 1916, has regional fixed routes in Kings County that stop in Hanford, Lemoore, Stratford, and Kettleman City on its route to Santa Maria. Service is also provided to Visalia. Orange Belt also connects with Greyhound bus service provided in the San Joaquin Valley. Increasing operations costs and low ridership figures are problems which Orange Belt must contend with. Efforts to coordinate services with other providers in the future are favorable. Currently, Orange Belt coordinates with Amtrak for bus connections out of the Hanford Intermodal Station.

Feeder buses connecting the Hanford station with the major cities in Tulare County is available as part of the regular route structure of Orange Belt Stages. An opportunity also exists to provide coordinated feeder bus service by the KART and Corcoran Dial-a-Ride systems. The feeder bus network is a very important element of the San Joaquin since more than 60% of all passengers use a feeder bus during their trip.

## 4.5 Bicycles and Trails

**California Vehicle Safety Code.** The California Vehicle Code has numerous laws about bicycles and bicycle safety.. One key provision is that bicycle riders on public roads have the same rights as motorists, and are subject to the same rules and regulations.

**Bicycle Plan.** Hanford adopted a comprehensive bicycle plan as part of the County Regional Transportation Plan. The Kings County Regional Bicycle Plan was adopted in 2011. The 2002 General Plan and the Bicycle Plan promote the establishment of a shared use roadway system, but encourage newly developing areas to provide for bicycle facilities along major roadways and off-road systems as part of open

space and recreation amenities. In addition, the Plan includes recommendations for support facilities and programs for the city.

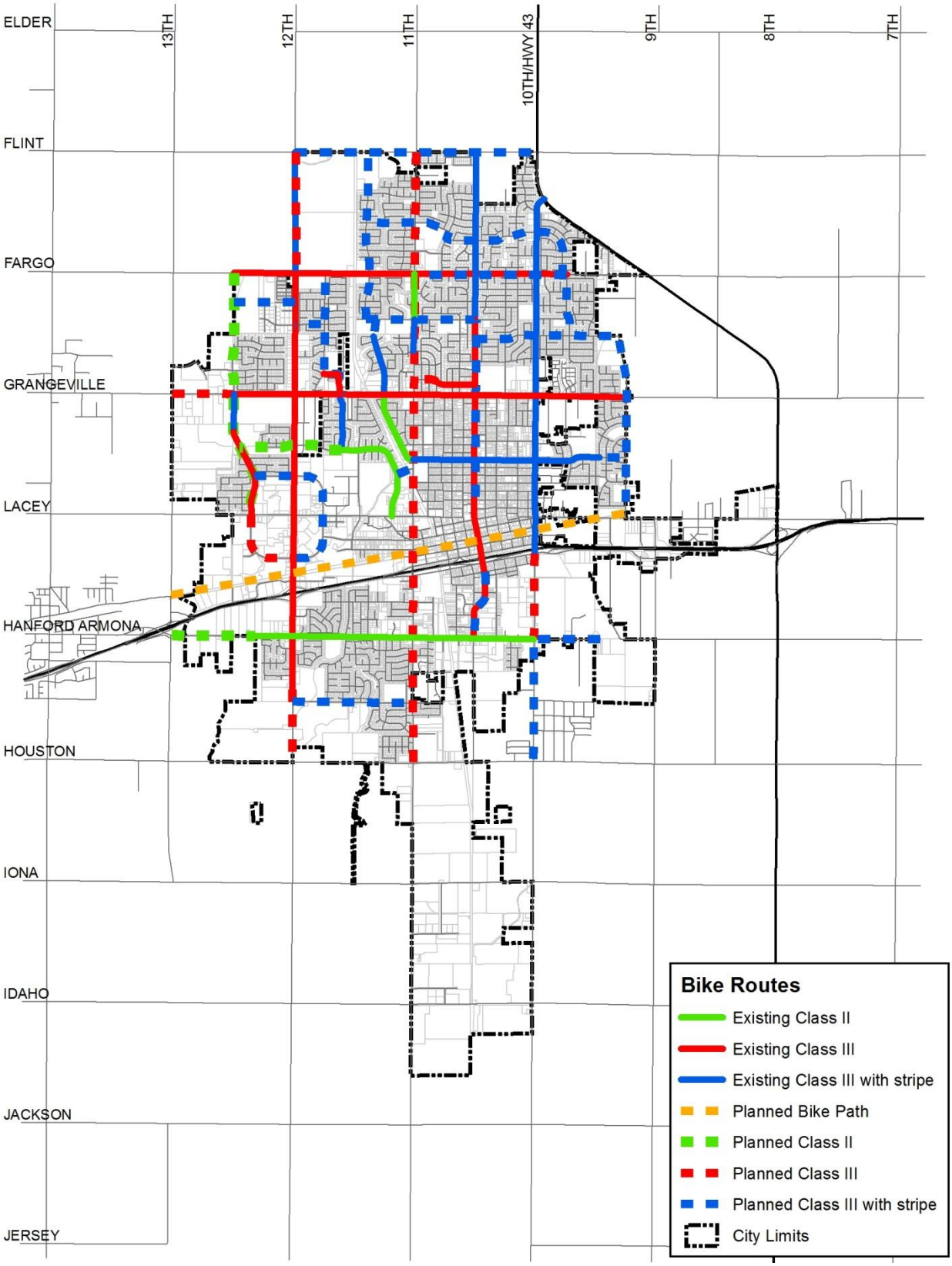
The City of Hanford has completed about half of the named bicycle projects from the 2011 Regional Bicycle Plan. The existing and planned routes are shown in Figure 4-3.

Nearly all arterials in the city limits have been designated as bikeways except 13th Avenue, Houston Avenue, and Lacey Boulevard. Some collector streets have been identified as bikeways including Pepper Drive, Glacier Way, Irwin Street, Rodgers Street. Encore Drive, Nellway, Leland Way, Fitzgerald Lane, Centennial Drive, Florinda Street, McCreary Avenue, Mall Drive, Liberty Street, Sanfioveser Street, University Avenue, Greenfield Avenue, and Hume Drive.

The San Joaquin Valley Railroad has also been designated as a location for an east-west bike path. The railway corridor is not abandoned and currently there are no plans to abandon it. Any possible bike path will need to be located within an easement adjacent to the railroad line, but not in the railway easement.

The adopted Hanford Downtown East Precise Plan recognizes the potential for an east-west connection from the 10th Avenue bike lane to Harris Street, and that section has been designated with a Class II bike lane.

*Figure 4-3: Bike Routes*



# 4.6 Aviation

## 4.6.1 Hanford Municipal Airport


Hanford Municipal Airport (HJO) is the only public aviation facility in Kings County. The airport does not offer commercial flights. The airport is located on the southeast edge of Hanford, and is owned and operated by the City of Hanford. The airport enforces city, State, and federal aviation regulations, and administers airport leases, tie-downs, hangars, shelters, fueling, and their overall maintenance.

At present, airport property totals approximately 295 acres. Airport acreage consists of a runway and full-length parallel taxiway, transient and based tiedown aprons, and aircraft storage areas. The runway's current length is 5,180 feet, 75 feet wide, and oriented roughly north-south. The runway is designed to accommodate aircraft with wingspans of up to 79 feet and speeds of up to 121 knots. The runway can accommodate larger aircraft on an occasional basis. Currently, the aircraft parking capacity totals 116 spaces and includes 37 hangar units, 30 shade hangar units, and 49 tiedowns.

Hanford Municipal Airport also serves as a base for the National Weather Service (NWS). The primary function of the NWS is to provide current and forecasted weather conditions in the area (e.g., humidity, wind speed, barometer, dewpoint, temperature and visibility).

Growth in industrial and commercial businesses near the airport could cause an increase in use by transient corporate and charter aircraft. As industrial development such as the Kings Industrial Park occurs and expands, the number of based aircraft at Hanford Municipal Airport is anticipated to increase. A change in the type of aircraft using the airport may occur as a result of industrial development, primarily in business/corporate aircraft.

There are potentially two distinct building areas on the airport. Currently only the west side of the airport has been developed. Development of the east side is not expected to be needed during the 20-year planning period of this plan.

The 2010 Airport Master Plan recommends that 153 acres be purchased to expand the airport property. The Plan states that the additional land should be acquired for development on the east side as well as space for large hangar sites. As noted above, currently, only the west side is developed with buildings such as aircraft storage hangars, shade hangars, aircraft tie-downs, a fueling facility, one fixed base operator, and the

airport staff's office. The east side already has a street network that can serve future development on the east side of the airport.

### 4.6.2 Other Area Airports

There are 8 public-use and 12 private-use airports within a 28-mile radius of Hanford Municipal Airport. The greatest interaction is with Visalia Airport, located 11 nautical miles east of the airport. The nearest airline service airport is Fresno-Yosemite International, 28 nautical miles north. One other airport of significance to the local aeronautical setting is Lemoore Naval Air Station. Only Visalia Municipal Airport and Fresno-Yosemite International Airports offer enhanced services, instrument approach capabilities with lower visibility minimums, and longer runways than Hanford Municipal Airport. Planned improvements at Hanford will make its facilities largely comparable to those at Visalia Municipal Airport.

### 4.6.3 Heliports

Hanford has one heliport located at the Hanford Community Hospital. The Hanford Municipal Airport does not have a designated helipad for helicopter operations.

## 4.7 Rail Service

### 4.7.1 Amtrak Passenger Service

Amtrak provides passenger rail service from Hanford station to the San Francisco Bay Area and Sacramento, and service to Southern California by a combination of rail and bus. Freight service is available from both the BNSF Railway and the San Joaquin Valley Railroad.

The Amtrak San Joaquin passenger train provides regularly scheduled intercity passenger rail service to Kings County. Stops are made daily at the Hanford and Corcoran stations for each northbound and southbound train. Stops along the San Joaquin line also include Bakersfield, Wasco, Fresno, Madera, Merced, Turlock, Modesto, Stockton, Antioch, Martinez, Richmond, Emeryville, and Oakland, with connecting bus service to Los Angeles, Sacramento, San Francisco, and many other points in Northern and Southern California. Passengers can transfer to the Amtrak Coast Starlight, which continues north to Portland and Seattle. Trains are accessible to the disabled and provide on-board bicycle racks, checked baggage and food services.

Amtrak Feeder Bus Service is currently provided to and from the Hanford station to Tulare County. This bus service connects Porterville,

Lindsay and Visalia with the Amtrak trains. This service provides an ideal opportunity for inter-modal connections in support of other regional public and private transportation providers.

Because Amtrak is a national enterprise, coordination with connecting transit service at the Amtrak stations must be done by the local transit operators. Kings Area Rural Transit (KART), Corcoran City Transit, and Orange Belt Stages all coordinate their bus service with the San Joaquin schedules. Amtrak passengers can board feeder bus service provided by Orange Belt Stages as a part of their regular route at Hanford for Santa Maria and other Central Coast destinations. Of the 73 California stations served by Amtrak, Hanford was the 20th-busiest in 2010, boarding or detraining an average of approximately 500 passengers daily.

Hanford has three transportation facilities that will influence the future connectivity of the collector street system. The railroads, San Joaquin Valley Railroad and Burlington Northern and Santa Fe, bisect the community. While the arterial system has developed around these rail lines without breaks in connectivity, the railroads' policy of limiting the number of at-grade crossings will greatly affect the location and layout of collector streets. The Burlington Northern and Santa Fe rail line will affect the collectors in northwest Hanford and in the Hanford Industrial Park. The San Joaquin Valley Railroad will influence the development of collectors west of 11th Avenue and east of 10th Avenue. Of particular importance to Hanford are the future rail crossings at 9th Avenue, Campus Drive (to be constructed in Spring 2014), and a crossing approximately at 12 ½ Avenue. Future improvements to the San Joaquin Railroad trackage must take into consideration these desired crossings. In addition to the rail lines, SR 198 will influence future north/south collectors. Like the San Joaquin Valley Railroad facility, the freeway will influence collector development west of 11th Avenue and east of 10th Avenue.

### 4.7.2 High Speed Rail

In November of 2008, Proposition 1A, a High Speed Rail bond, was passed by California voters. In 2009, the U.S. Department of Transportation (USDOT) though the American Recovery and Reinvestment Act (ARRA) program, announced the allocation of $8 billion to high speed rail projects throughout the US. Of that amount, $2.25 billion was allocated to California High Speed Rail. In November 2013, the California High Speed Rail Commission identified the preferred route through the Planning Area. The selected route, which

runs along the eastern edge of Hanford, roughly follows a north-south route near the high voltage power lines between 7th and 8th avenues.

### 4.7.3 Freight Service

Almost 87% of the total freight tonnage is moved out of the Valley by truck, while rail accounts for 11%. BNSF and SJVR railroads provide freight service to the Hanford area. The BNSF mainline is double-tracked through the entire Planning Area. Over time, it is expected that the number of trains using the system will increase as demand for rail service increases. The BNSF railroad currently operates between 25 and 30 trains per day on the system.

SJVR has a limited schedule of one train per day. Development of new industry along the SJVR right-of-way has prompted renewed investment in the east/west service. SJVR anticipates an increase to 3 round trips per week and in the speed of trains using this route. Planning for improvements must include identifying future surface crossings that are needed to implement the City's circulation system. In the process of improving the SJVR trackage, existing street crossings need to be modernized to ensure safety and adequate operational standards for both rail and vehicular traffic.

# CHAPTER 5

# OPEN SPACE, CONSERVATION & RECREATION

# CHAPTER 5
# OPEN SPACE, CONSERVATION, & RECREATION

## 5.1 Introduction

Hanford's natural and open space environment forms an important part of the city's unique character. In an effort to identify and understand the key natural resources of the city, this chapter is divided into the following sections:

- Soils
- Agricultural Resources
- Mineral and Energy Resources
- Water Resources
- Biological Resources
- Historic and Cultural Resources
- Scenic Resources
- Parks and Recreation

State law mandates that open space elements address four basic areas of concerns: (1) Open space for resource management including agricultural and mineral resources; (2) Open space for outdoor recreation including parks and recreational facilities; (3) Open space for public health and safety including flood prone areas and earthquake fault zones; (4) Open space for the preservation of natural resources, including natural plant communities, habitat for fish and wildlife, and water resources. Added to this, the conservation element is required to address issues such as waterways, soils, wildlife preservation, natural and riparian habitats and scenic, and historical and cultural resource conservation. Recreational

topics addressed in this report include neighborhood and community parks, and trail systems.

## 5.2 Soils

The surface soils in Kings County were mapped by the U.S. Soil Conservation Service (USDA, 1986), an agency now known as the Natural Resource Conservation Service (NRCS). Hanford lies within an area of the county where the soil is defined as "alluvial fan surfaces".

The alluvial fan surfaces in the northeastern portion of the county are mantled with very deep, well-drained, saline-alkali soils. These soils include two soil associations: Nord and Kimberlina-Garces.

The Nord association soils are located west and northwest of Hanford in the higher portions of the Cross Creek alluvial fan. Nord soils are currently under cultivation. The vegetation was annual grasses, forbs, and California white oak (Quercus lobata). Oaks are still growing in many fields with the crops. Nord soils are used for such crops as irrigated alfalfa, cotton, corn, milo, barley, wheat, sugar beets, tomatoes, grapes, walnuts, peaches and other fruit and nut trees.

The Kimberlina-Garces associations mantle the lower portions of the alluvial fan and are located east and south of Hanford. This soil association is are best suited for salt- and alkali-tolerant, drought resistant crops. Generally, soils within this group present only slight restrictions to building site development.

The Kings County Environmental Resource Management element mapped the County's soils based on moisture infiltration rates, shrink/swell characteristics, and load carrying capabilities. This evaluation found the soils beneath the existing community to be roughly half Group 1 and half Group 2 soils. These soils classifications are as follows:

**Group 1:** High to moderate soil infiltration rates. Low shrink/swell behavior. Moderate to severe soil pressure limitations. Moderately well adapted for urban/industrial uses. These soils are found within the Hanford community and extend to the west of the city.

**Group 2:** Moderate to very slow infiltration rates. Moderate shrink/swell behavior. Highly corrosive to steel pipes. Moderate to severe limitations for urban uses. These soils are found within the existing Hanford community and extend to the east of the city.

# 5.3 Agricultural Resources

## 5.3.1 Introduction

Agricultural production is the most important economic base in Kings County, accounting for over $4.8 billion in production value in 2007. The City's climate, water availability and proximity to transcontinental transportation routes have made it a premier location for agricultural land development for over a century. Most of the land surrounding the urbanized area of Hanford was converted to agricultural use over a century ago, leaving very little undisturbed natural landscape.

## 5.3.2 Farmland Mapping

The California Department of Conservation (DOC), under the Division of Land Resource Protection, has developed the Farmland Mapping and Monitoring Program (FMMP) to monitor the conversion of the farmland to and from agricultural use. Data is collected and a series of maps are prepared that identify eight classifications and uses based on a minimum mapping unit size of 10 acres. The program also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. Agricultural land is rated according to several variables including soil quality and irrigation status. Table 5-1 describes DOC's defined categories of farmland, with Prime Farmland being considered the most optimal for farming practices. There are three farmland types in and around Hanford. Figure 5-1 shows the DOC's 2010 mapping of the Planning Area. The following definitions of the different types of farmland are from the DOC.

***Table 5-1: Farmland Definitions***

| FARMLAND DESIGNATION | DESCRIPTION |
|---|---|
| ***Prime Farmland*** | *Prime Farmland Land has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained yields of crops when treated and managed, including water management, according to current farming methods. It must have been used for the production of irrigated crops within the last three years. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.* |
| ***Farmland of Statewide Importance*** | *Similar to Prime Farmland but with minor shortcomings such as greater slopes or less ability to hold and store moisture. Considered to have an excellent combination of physical and chemical characteristics for crop production.* |
| ***Unique Farmland*** | *Land of lesser quality soils used for the production of specific high-economic value crops. It has the special combination of soil quality, location and growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. Unique farmland is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California.* |

*Figure 5-1: Farmland Mapping (2010)*

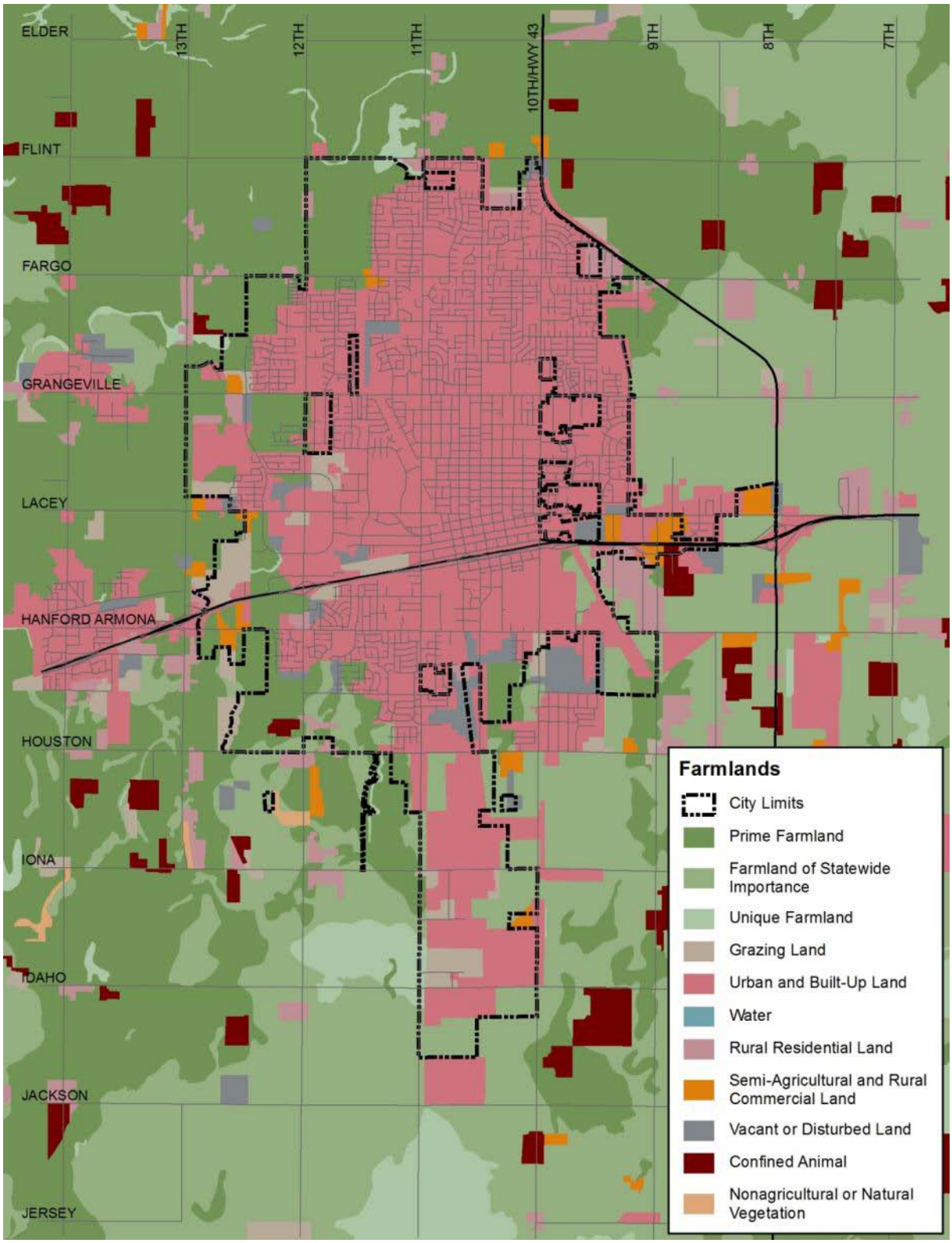


*Table 5-2: Kings County Farmland Conversion (1984-2010)*

Farmland Mapping and Monitoring Program

CALIFORNIA DEPARTMENT OF CONSERVATION

| LAND USE CATEGORY | ACREAGE BY CATEGORY | | | | 1984-2010 NET ACREAGE CHANGED | AVERAGE ANNUAL ACREAGE CHANGE |
|---|---|---|---|---|---|---|
| | 1984 | 1990 | 2000 | 2010 | | |
| Prime Farmland | 149,508 | 147,203 | 141,213 | 130,257 | -19,251 | -740 |
| Farmland of Statewide Importance | 466,040 | 454,745 | 430,760 | 388,891 | -77,149 | -2,967 |
| Unique Farmland | 27,340 | 26,712 | 28,450 | 21,801 | -5,539 | -213 |
| Farmland of Local Importance * | 0 | 0 | 6,851 | 11,138 | 11,138 | 428 |
| **Important Farmland Subtotal** | 642,888 | 628,660 | 607,274 | 552,087 | -90,801 | -3,492 |
| Grazing Land | 223,340 | 223,885 | 238,485 | 271,831 | 48,491 | 1,865 |
| **Agricultural Land Subtotal** | 866,228 | 852,545 | 845,759 | 823,918 | -42,310 | -1,627 |
| Urban and Built-Up Land | 16,165 | 25,664 | 28,938 | 35,847 | 19,682 | 757 |
| Other Land | 8,273 | 12,458 | 16,018 | 30,959 | 22,686 | 873 |
| Water Area | 119 | 119 | 66 | 62 | -57 | -2 |
| **Total Area Inventoried** | 890,785 | 890,786 | 890,781 | 890,786 | 1 | 0 |

* The Kings County Board of Supervisors adopted a Farmland of Local Importance definition in 1992.

Table 5-2 shows the acreage of farmland that has been converted between 1984, when mapping began, and 2010. A total of 90,801 acres of farmland (14% of the total) has been converted to other uses during this period. Of those 90,801 acres, 53% was converted to grazing land, 22% was converted to urban land, and 25% was converted to "other" land, which based on the FMMP definitions, is likely confined animal facilities.

### 5.3.3 The Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to restrict the use of specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal. This is a voluntary program. Landowners enter into contracts with participating cities and counties and agree to restrict their land to agriculture or open space use for a minimum of 10 or 20 years.

The Williamson Act has two types of contracts. Land Conservation Contracts are the more common type. They have a term of a minimum of 10 years, and are renewed for an additional year unless a notice of nonrenewal is filed. Once the notice is filed, the contract completes its

remaining 10-year term before it expires. This means that landowners with land subject to a land conservation contract need to be planning at least 10 years in advance if they have interest in converting the land to non-agricultural uses. The lesser used type of contract is the Farmland Security Zone contract. These contracts have a life of at least 20 years, and have more restrictions on where they can be placed. Except in extreme circumstances, they are intended to permanently commit the land to agricultural use.

Between 1972 and 2009 the State of California provided subvention payments to counties to partially replace the lost property tax review from the program. In 2009, Kings County received a subvention payment of $2.6 million. This was the fourth largest subvention payment made to a county that year, behind only Fresno, Tulare, and Kern counties. Beginning in 2010, the State severely reduced and then completely eliminated all subvention payments. This represented a significant loss of revenue to Kings County since the reduced property tax assessments continue to remain.

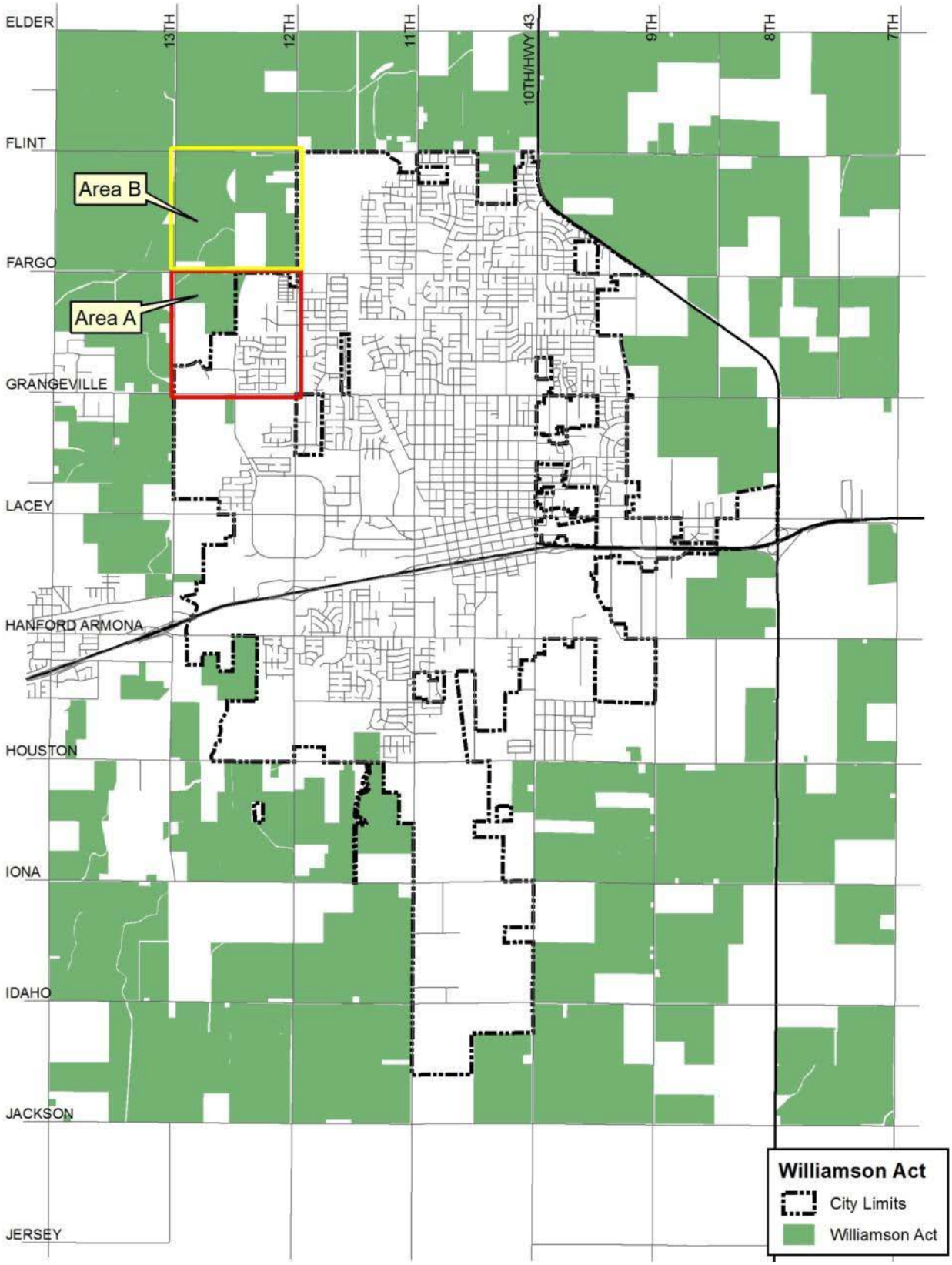
**Williamson Act Lands within the Planning Area.** There are 17,566 acres of land currently subject to a Williamson Act Contract within the Planning Area (see Table 5-3 and Figure 5-2). Of that amount, all but 2,529 acres are outside the Primary Sphere of Influence (SOI) for Hanford. There are 292 acres currently under non-renewal and scheduled to be removed from the provisions of the Williamson Act between 2014 to 2017. The first amount of land, approximately 74 acres, that is scheduled to be removed from the Williamson Act is located in the northwest portion of the Primary SOI, on the southeast corner of Fargo Avenue and 13th Avenue (Area A in Figure 5-2).

Within the Secondary SOI, there are approximately 5,120 acres of land within the Williamson Act that comprise approximately 58 percent of the total land within the Secondary SOI (8,826 acres). Of that land, approximately 571 acres, 6.4 percent of the Secondary SOI, is scheduled to be removed from the Williamson Act through the non-renewal process between 2015 and 2023. Directly adjacent to the northwest city limits of Hanford, there are approximately 310 acres of land located between 13th and 12th Avenues to the west and east and by Flint and Fargo Avenues to the north and south, respectively, that will be removed from the Williamson Act between 2015 and 2017 (Area B in Figure 5-2).

***Table 5-3: Land within Williamson Act***

| | *Total Area (acres)* | *Area within Williamson Act (acres)* | *Percentage Area within Williamson Act* | *Acres with Notice of Nonrenewal (acres)* |
|---|---|---|---|---|
| *Within City Limits* | ***10,935*** | ***56*** | ***0.5%*** | ***43*** |
| *Within Primary Sphere* | ***5,825*** | ***2,473*** | ***42.5%*** | ***292*** |
| *Within Secondary Sphere* | ***8,826*** | ***5,120*** | ***58.0%*** | ***572*** |
| *Within Planning Area* | ***15,244*** | ***9,917*** | ***65.1%*** | ***262*** |
| *TOTAL* | ***40,831*** | ***17,566*** | ***43.0%*** | ***1,169*** |

*Figure 5-2: Williamson Act Lands*



### 5.3.4 Kings County Agriculture Land Use Designations.

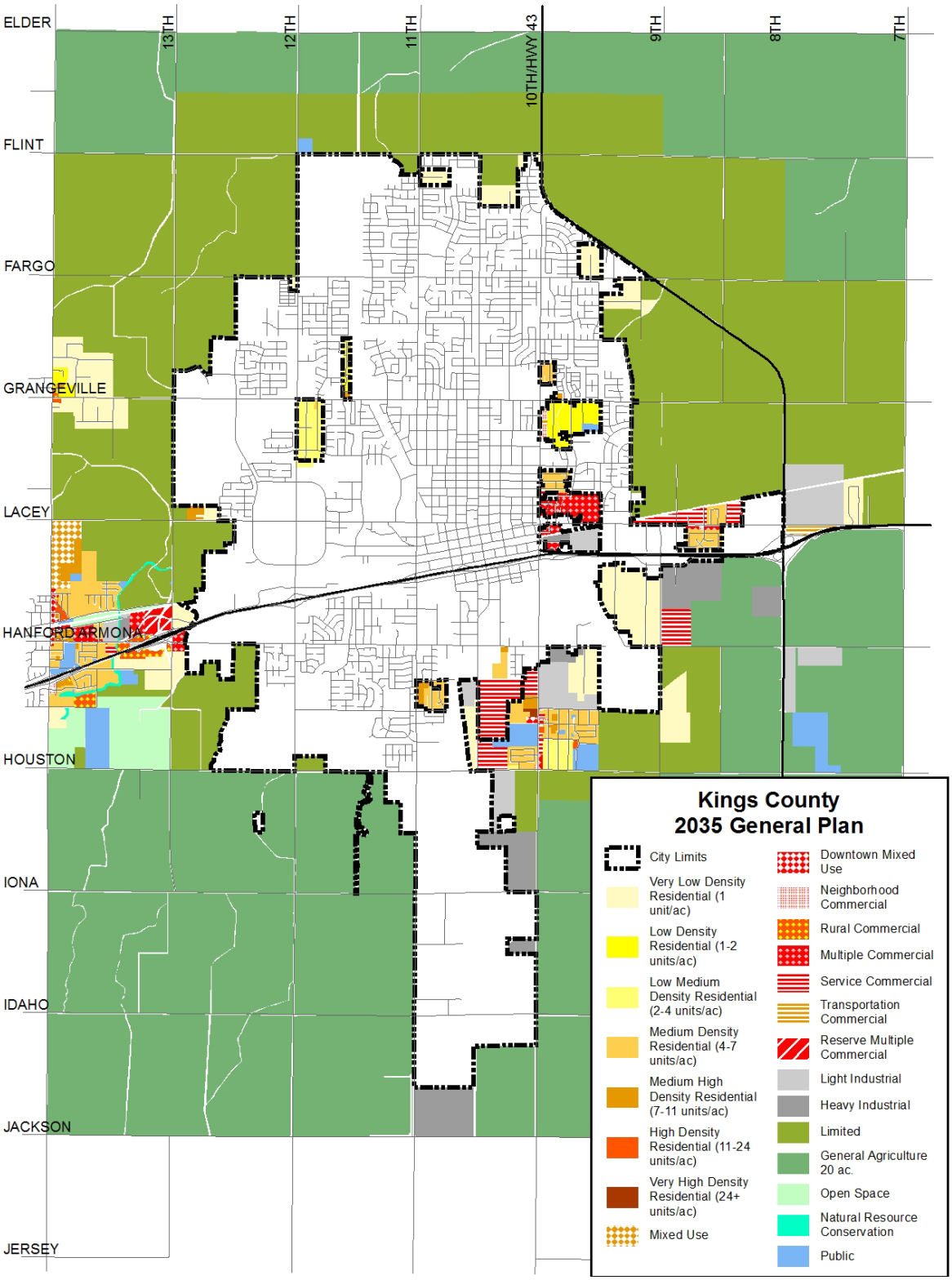
There are three agricultural land use designations in the Kings County General Plan: Limited Agriculture, General Agriculture, and Exclusive Agriculture. The purposes of the three designations are to protect agriculture land from the encroachment of incompatible uses, and to provide appropriate locations for agricultural support business. The major difference between the three designations relate to minimum parcel size, animal keeping, and agricultural service business. Figure 5-3 shows the County's Agricultural Land Use designations within the study area.

**Limited Agriculture** This designation is applied around urban and rural community areas throughout the county to serve as a buffer between urban and intensive agricultural uses. Permitted activities in the Limited Agriculture areas include field crops, vines, pasture grazing, farm-related homes, farm-related shops, and uses that include the temporary or permanent keeping of animals such as kennels and veterinary hospitals. Examples of excludes uses include new livestock animal concentrations, such as dairies, new intensive agri-service business of a permanent nature, such as cotton gins or other large produce processing activities, farm equipment sales, and service or repair establishments. However, existing agri-service businesses that were established prior to November 16, 2000, may construct new accessory structures that are incidental to the existing use. The minimum parcel size is 10 acres

**General Agriculture** This designation is applied throughout the county beyond the Limited Agriculture and urban areas. Permitted activities in the General Agriculture designation are similar to the Limited Agriculture designation, but also include intensive uses such as additional animal concentrations and agri-service businesses. Within the Planning Area, there is a requirement that all land designated General Agriculture have a 20-acre minimum parcel size.

**Exclusive Agriculture** This designation is applied generally in a three-mile-wide band around NAS Lemoore. The minimum parcel size in the Exclusive Agriculture area is 40 acres. Additional lands located within NAS Lemoore's flight paths and noise contours, outside the three-mile band, are currently under consideration for inclusion into the Exclusive Agriculture land use designation by the 2009 Kings County General Plan Update.

***Figure 5-3: County General Plan Land Use for Planning Area***



### 5.3.5 Deed-Restricted Agricultural Sites

There are two sites within the Planning Area that will remain in agricultural use due to deed restrictions that have been voluntarily placed on the property by their owners.

**Burris Park Foundation Site.** Founded in 2007, the Burris Park Foundation performs fundraising and makes expenditures to facilitate the development and implementation of the Outdoor Education Program. Approximately 75 acres south of Grangeville Avenue between Centennial Drive and 12th Avenue was donated to the Burris Park Foundation with the stipulation that it shall remain in agricultural use (currently almonds and pistachios). However, 22-acres may be utilized for an elementary school should the need arise. Currently, the site is planted with pistachio trees and the proceeds from the farming activities are used as a revenue stream for the Foundation.

**American Farmland Trust Site.** Founded in 1980, American Farmland Trust (AFT) is recognized as a national leader in protecting America's farm and ranch land, promoting healthy farming practices and supporting farms and farmers. AFT acquired an agricultural conservation easement on approximately 73 acres of land in the northern portion of the Planning Area, located south of Flint Avenue and east of Douty Avenue. The conservation easement requires that the land remain only in agricultural use.

## 5.4 Mineral and Energy Resources

### 5.4.1 Mineral Resources

Resource extraction involves the removal of natural resources from their place of discovery. The only significant mineral commodities that have been found within the Hanford Planning Area are sand and gravel for road and building construction. At this time there are no known significant deposits, and no active mines.

### 5.4.2 Energy Resources

Energy can be classified as being either renewable or non-renewable. Renewable resources are those that the supply is unlimited or it can be replenished. This includes solar and wind energy, and, if properly managed, hydroelectric and geothermal power. Nonrenewable resources are those which are limited in supply and which may eventually be depleted. These energy resources include water, oil, and gas. At present, most energy consumed is nonrenewable. There are no resources being used to generate energy from use off-site.

### 5.4.3 Examples of Recent Conversions from Non-Renewable to Renewable Energy

In December 2012, City of Hanford and Chevron Energy Solutions completed a transformative solar program that reduces energy costs at the City's wastewater treatment plant at 10555 Houston Avenue and will save more than $7 million over the program's life. The program is expected to cut the City of Hanford's electrical utility purchases by nearly 50 percent at the wastewater treatment plant and offset annual carbon emissions by nearly 1,000 metric tons, an amount equal to removing about 200 cars from the road each year.


In May 2012, Kings County undertook a program to build parking lot shade structures at the County Library and the County Government Center. The panels convert sunlight into a total of about 126 kilowatts during daylight hours to help offset the utility cost at the Library.

In 2013, the City reported that the greatest number of building permits were for solar rooftop panels on homes throughout the city.

Multiple use of the heat generated from natural gas in the production of electricity can be transferred into steam that is used by other industries. GWF has recently constructed a natural gas fired power plant in Hanford and steam from cooling can be made available to neighboring industries for processing needs. This multiple use effort can conserve non-renewable fuels.

## 5.5 Water Resources

Hanford is located in the Tulare Lake Hydrologic Study Area (TLHSA) as defined by the California Department of Water Resources (CDWR). Encompassing the southern portion of the San Joaquin Valley and adjacent mountain slopes, most surface water in the TLHSA originates as precipitation in the Sierra Nevada Mountain Range.

Hanford's underlying geology is comprised of alluvial deposits. Such deposits form highly productive groundwater aquifers that store vast quantities of water. The San Joaquin Valley groundwater basin has an estimated storage of 570 million acre feet with an estimated useable capacity of 80 million acre feet (DEIR, Hanford Co-generation Project, 1987).

Groundwater has been utilized within the San Joaquin Valley since the early 1900s. Observations in 1916 recorded water levels less than 20 feet below ground surface. Development of irrigated agriculture and reliance on groundwater for urban uses in the TLHSA exceeded recharge as early

as 1930. Overdraft levels (pumping exceeding recharge) continued to increase until the late 1970s. Since that time, overdraft rates have steadily declined with greater use of surface water resources.

The TLHSA has shown considerable potential for rapid groundwater recharge. This is evident in a reduction of over-drafting and actual increase in groundwater levels during the non-drought period of 1977 to 1986 and again following the break in the drought for the year 1993. This allowed greater reliance on surface water resources, lessened reliance on groundwater, and a general increase in soil absorption that resulted in aquifer recharge.

A significant feature of the aquifers in the Hanford area is a layer known as the E-clay or Corcoran clay. This layer effectively divides the aquifer into two levels, creating an upper and lower aquifer. This layer is located approximately 450 feet below ground surface. Hanford's municipal groundwater is pumped from the lower aquifer, while most private wells pump water from the upper aquifer.

Groundwater in the Hanford area occurs in several ways. Water from natural precipitation, natural and manmade drainage ways and canals, and agricultural irrigation percolates to aquifers. Water also migrates below the ground surface from areas north of Hanford. Finally, Kings County Water District (KCWD) and the City of Hanford are involved in artificial recharge programs that utilize excess surface water.

The City of Hanford has approximately 568 acre feet of water retention and percolation basins. Additionally, the City is planning to add approximately 317 acre feet of drainage basins. Most of these will be located along major drainage channels within the city, and these basins will be designed to provide groundwater recharge as well as flood protection. These basins may also be utilized during dry periods to percolate imported surface waters to recharge aquifers.

The City of Hanford also recharges the groundwater table through the disposal of treated disinfected wastewater from its wastewater treatment facility. Each day approximately 5 million gallons of water is processed through the facility and discharged as irrigation water for specific types of agricultural crops on land owned outside the City. The City recently purchased land southwest of the City Limits to expand the area available for wastewater reuse and in the process preserved this land for agricultural purposes.

Quality of groundwater within Hanford is acceptable. The Environmental Protection Agency (EPA) and the California Department of Public Health have set the arsenic standard for drinking water at .010 parts per million (10 parts per billion) to protect consumers served by public water systems from the effects of long-term, chronic exposure to arsenic. In order to meet these standards, the City now drills wells up to 1,500 feet deep. Drilling City water wells to this depth and pumping water has substantially increased the cost of providing domestic water for Hanford residents.

Agricultural irrigation water is provided in the vicinity of Hanford by the Kings County Water District (KCWD) and the Kaweah Delta Water Conservation District (KDWCD). In addition to providing agricultural water, both of these districts are involved in active groundwater recharge programs. These programs are carried out through impounding surface water within basins (which recharge local groundwater aquifers), and delivery of surface water (which reduces the reliance on groundwater for agriculture), thereby conserving that valuable natural resource.

The only natural watercourse is Mussel Slough, remnants of which still exist on the city's western edge. The People's Ditch, an irrigation canal dug in the 1870s, traverses Hanford from north to south and portions of it still exist north of Grangeville Road and east of the Santa Fe Railroad. The Sand and Lone Oak sloughs once traversed the city north and south, but remnants still remain in the southern half of the City south of SR 198. The Kings River is about four miles north of Hanford.

## 5.6 Biological Resources

### 5.6.1 Biological Setting

Although not common, it is possible that the Planning Area could be inhabited by rare, threatened, or endangered species. There are also resources as such as wetlands, oak trees, and eucalyptus windrows that could be disturbed by new development activity that results from city

growth. Such disturbance would also have the potential to adversely affect species that inhabit these types of areas, including various amphibians, mammals, song birds, and raptors. Figure 5-3 identifies previous sightings of endangered species within the Planning Area. It also shows the location of two existing natural vegetation areas within the Planning Area.

### 5.6.2 Flora

**Riparian Woodlands.** Riparian Woodlands are one of the richest wildlife habitats in the state; however, much has been severely degraded. Less than one percent of the Central Valley's riparian vegetation is in a natural, high quality condition. Vast areas of wetlands (such as the historical Tulare Lake) once occurred in the county. This vast area supported an abundance of wildlife such as Tule Elk, Pronghorn, Grizzly Bears, wading birds, furbearers, pond turtles, frogs, native fishes, and huge numbers of breeding and wintering wildfowl. Today, less than four percent remains.

There are two patches of riparian woodlands identified by the State Department of Conservation mapping program that are within the Planning Area. They are located on the west side of 12th Avenue between Houston and Iona avenues, and along the west side of 13th Avenue, north of Iona Avenue. They are 30 and 14 acres in size, respectively.

**Valley Oak Woodland.** Valley Oak Woodland habitat has been seriously impacted by agricultural conversion. These oak woodlands, once miles wide, have been largely reduced to large, relic trees scattered on the immediate riverbanks and as shade trees around farmhouses and parks. Valley oak woodland was located along the floodplain of the sloughs and side channels in areas of west Hanford. This habitat is characterized by well-spaced stands of mature valley oak (Quercus lobata) with little or no subcanopy.

Valley oak woodland provides food, cover, nesting sites, and dispersal habitat for a wide variety of wildlife. The large oak trees present in this habitat provide nesting opportunities for many birds of prey, including Swainson's hawk. Typical wildlife species in this vegetation community include California ground squirrel, western fence lizard, western scrub jay, California quail, northern flicker, northern mockingbird, mourning dove, American kestrel, and red-tailed hawk.

### 5.6.3 Fauna

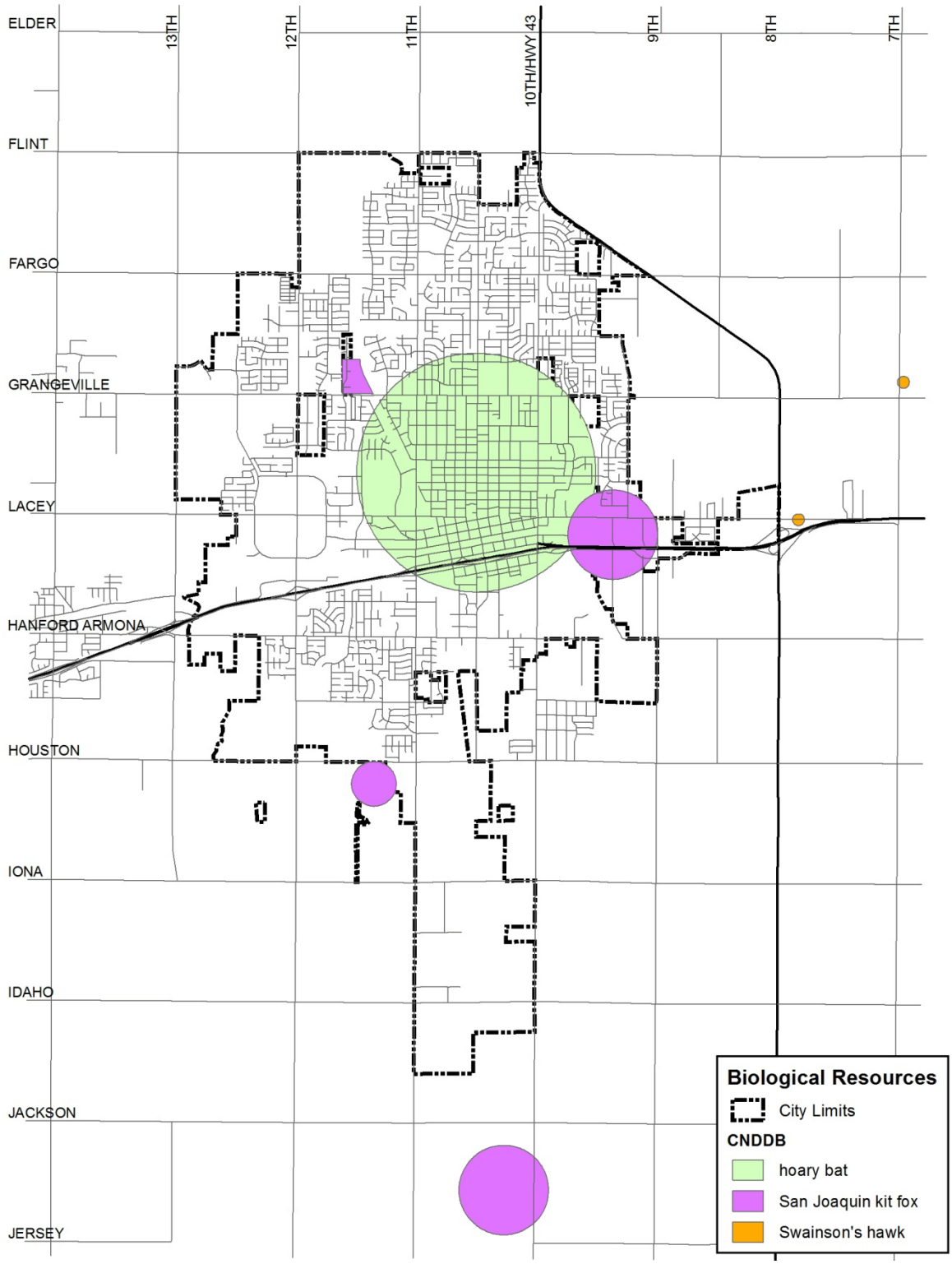
**Hoary Bat.** The bat is yellowish brown to mahogany brown. The underside is whitish on the abdomen, pale brown on the chest, and yellowish on throat. The bat is about 5 inches in body length and has a wingspan of about 5 inches. Young are born in June. Like other bats, it forages on insects at night. The bat prefers open habitats or habitat mosaics, with access to trees or cover and open areas or habitat edges for feeding. It roosts on dense foliage of medium to large trees and feeds primarily on moths. Hoary bats prey on many insect species that are considered to be pests. It occasionally uses caves for roosting. This species has been found in the urbanized area of Hanford and the Kings County General Plan Update EIR identified the need to avoid disturbing hoary bat breeding colony sites.

**San Joaquin Kit Fox.** The delicately built, cat-sized San Joaquin kit fox is the smallest North American member of the dog family. San Joaquin kit foxes have an average body length of 20 inches, an average tail length of 21 inches, and stand about 9 to 12 inches at the shoulder. These slender-built animals are characterized by relatively long legs and large, conspicuous ears. Adult males weigh about 5 pounds, and adult females weigh about 4.6 pounds. This species is mostly nocturnal, and hunts jackrabbits, cottontails, kangaroo rats, ground squirrels, and mice.

The kit fox cannot construct its dens in shallow or hardpan soils, or areas where the water table is high. For ease of digging burrows, it has preferred areas on the western side of the Valley where the soil is loose-textured. During the day it occupies dens; a mated pair may have more than thirty dens over nearly six hundred acres of territory. San Joaquin kit foxes are frequently found on cultivated ground and in pastures, although they probably cannot survive indefinitely in intensely cultivated and irrigated land.

In the 1970s, kit foxes were still denning along Cross Creek from east of Hanford into Tulare County, and individual animals were still seen occasionally in portions of the county north of Hanford. There have not been any recent records from those areas. Agricultural and residential development of the San Joaquin Valley has eliminated most of the San Joaquin kit fox's habitat. By 1979, less than 7 percent of its original habitat remained.

*Figure 5-4: Identified Natural Areas and Species Sightings*




Sources: Department of Conservation; CA Natural Diversity Database

**Swainson's Hawk.** The Swainson's hawk (Buteo swainsoni) is a State-listed threatened species in California that was listed in 1983 by the California Fish and Game Commission due to its diminishing habitat and the decreased population numbers across the state. Today, the majority of the population in California resides throughout much of the California Central Valley that extends from Tehama County to Tulare and Kings counties. Kings County provides suitable Swainson's hawk habitat, consisting of large, open grassland and agricultural landscapes. Swainson's hawks are migratory birds of prey that spend their breeding season (roughly March 15th thru September 15th) in the Central Valley and their winters on the plains of southern Brazil and Argentina.

**Western Pond Turtle.** The western pond turtle has lost most of its habitat in the Central Valley of California to agricultural activities, flood control, and urbanization. Although a few areas still support this turtle, most habitats are now altered by humans. This turtle was originally present in such sufficient numbers in Tulare Lake that it was commercially harvested in the late 1800s. Few extant populations are now known from Kings County. They are still found in the Kings River and there is a population that lives at the Hanford Wastewater Treatment Facility.

## 5.7 Historical and Cultural Resources

### 5.7.1 Regulatory Setting

A property may be designated as historic by National, State, or local authorities. In order for a building to qualify for listing in the National Register of Historic Places, the California Register of Historical Resources, or as a locally significant property in the county, it must meet one or more identified criteria of significance. If the designation is for a building, the structure should also retain sufficient architectural integrity to continue to evoke the sense of place and time with which it is historically associated. An explanation of these designations follows.

**National Register of Historic Places.** The National Register of Historic Places (NRHP) is administered by the National Park Service. Listing in the National Register assists in preservation of historic properties through the following actions: recognition that a property is of significance to the nation, the state, or the community; consideration in planning for federal or federally-assisted projects; eligibility for federal tax benefits; consideration in the decision to issue a federal permit; and qualification for federal assistance for historic preservation grants, when

funds are available. Properties may qualify for NRHP listing if they meet any of the following criteria:

- Are associated with events that have made a significant contribution to the broad patterns of our history
- Are associated with the lives of persons significant in our past
- Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
- Have yielded, or may be likely to yield, information important in prehistory or history

**California Register of Historic Resources.** The California Register of Historic Resources (CRHR) is an authoritative guide in California used by State and local agencies, private groups, and citizens to identify the State's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from substantial adverse change. A resource is eligible for listing on the California Register if it meets any of the following criteria for listing:

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
- It is associated with the lives of persons important in our past
- It embodies the distinctive work of an important creative individual, or possesses high artistic values
- It has yielded, or may be likely to yield, information important in prehistory or history

### 5.7.2 Historic Resources

Hanford has three buildings listed on the National Registry of Historic Places. They are the Hanford Carnegie Library, the Kings County Courthouse, and the Taoist Temple. All three buildings are also listed on the California Register of Historic Resources.

**Hanford Carnegie Library.** The Hanford Carnegie Library, now the Hanford Carnegie Museum, was built in 1905 as one of the many

Carnegie libraries that were funded by steel magnate Andrew Carnegie. The library was replaced by a new structure at a different location in 1968. The old library was subsequently renovated and re-opened as the Hanford Carnegie Museum in 1974. The building is of Romanesque Revival architecture, with displays of furniture and photos describing the history of the Hanford area.

The second floor exhibits the history of Kings County, the cultural groups that helped build the community, and a look at the early settlers and businesses that help form the community. The first floor includes exhibits on the daily life of Victorian Hanford, Hanford's military history, and a tribute to Amelia Earhart.

**Kings County Courthouse.** The 1896 Kings County Courthouse was erected after Kings County was formed. Constructed in an eclectic mix of styles in a park in the center of Hanford, it was expanded in 1914. The building served as the county's courthouse until 1976 when it was replaced by the new Kings County Government Center on West Lacey Boulevard. The building was listed on the National Register of Historic Places in 1978. The old courthouse was remodeled in the early 1980s and now houses offices, small shops, and eating places.

**Taoist Temple.** The Taoist Temple at No. 12 China Alley in Hanford, in Kings County, California, dates from 1893. It was listed on the U.S. National Register of Historic Places (NRHP) in 1972. It is historically significant as a surviving authentic structure from Hanford's Chinatown, after it moved to the 200-foot long China Alley in the 1890s, after a fire in the previous Chinatown area. China Alley served the second largest population of Chinese in the U.S., behind San Francisco. The temple itself was argued in its NRHP nomination to be valuable "as an example of typical late 19th century indigenous construction, with oriental overtones in keeping with the theme of the original Hanford Chinese settlement and with the buildings still remaining."

**China Alley.** The National Trust for Historic Preservation named China Alley in Hanford to its 2011 list of America's 11 Most Endangered Historic Places. This annual list highlights important examples of the nation's architectural, cultural and natural heritage that are at risk of destruction or irreparable damage. Not only does the "11 Most" list emphasize the importance of preservation, it also helps local groups rally support for the buildings in imminent danger.

When Chinese immigrants first arrived in Hanford in 1877, they found themselves in an unfamiliar place with no reminders of home, facing cultural barriers, and often out-right racism. Chinese men supplied the

back-breaking labor that built the railroads and then labored in the increasing acreage devoted to agriculture. Despite segregation and oppression, the Chinese community in Hanford flourished and developed a vibrant Chinatown, known as China Alley, which soon boasted restaurants, herb stores, laundries, gambling houses, grocers and a Taoist temple—all constructed of local California redwood and brick fired on site. A short, densely lined street, China Alley was a vibrant hub where immigrants met to talk politics, share a meal, read Chinese newspapers and play mah-jong. Reaching its peak in the pre-World War II years, China Alley increasingly served a more diverse population, especially as racial barriers were challenged and eased.

The China Alley buildings, many with Chinese vernacular details, are a compelling reminder of Hanford's vibrant Chinese community of the 19th and 20th centuries. While many urban Chinatowns continue to thrive, most rural Chinatowns have declined; Hanford's China Alley is unique for its retention of many original features. China Alley's survival is largely because many of its buildings are owned by a single third-generation family corporation that has, through the years, exhibited concern for the site's future.

### 5.7.3 Archaeological Sites

Native Americans have established many places which they consider sacred. Sacred sites vary in form, ranging from settlements where Native Americans lived to specific places of religious significance. Sacred sites are invaluable to Native Americans because they are part of their cultural beliefs and practices. Due to urban growth and development, however, Native American sacred sites are threatened by destruction. California law requires cities and counties to contact, and consult with California Native American Tribes before adopting or amending a General Plan, or when designating land as open space for the purpose of protecting Native American cultural places. This allows Native American tribes an opportunity to participate in local land use decisions at an early stage in the planning process for the purpose of protecting or mitigating impacts to cultural places. The process of locating cultural places begins with contacting the NAHC (Native American Heritage Commission). Native American sites are confidential and their locations cannot be published. A board certified archaeologist is qualified to review maps and data to identify their locations.

***California Native American Heritage Commission***

*"For the preservation and protection of Native American human remains, associated grave goods, and cultural resources."*

### 5.7.4 Cultural Resources

There are a number of resources within Hanford that contribute to its unique culture, yet are not officially listed as historic resources.

**Clark Center for Japanese and Art & Culture.** At the Clark Center for Japanese Art & Culture at 15770 10th Avenue, visitors encounter about 1,600 works, including ceramics, sculptures, folding screens, hanging scrolls and a library featuring nearly 7,000 titles on Japanese art. The center also features a changing display of more than 20 bonsai trees.

**Temple Theater.** The old Chinese school at 514 Visalia Street. in Hanford was built in 1922 for $3,500. Children from the town's Chinese district were sent to the school to learn Chinese history, language and culture. Known as the Chinese Center for Knowledge, it closed in the late 1940s. Reopened in 1964, the Kings Players at the Temple Theater present live performances annually from March through December.

**Fox Theater.** Built by William Fox of Fox Theaters in 1929, the Hanford Fox Theatre was designed as an "atmospheric theatre". This type of theatre, as opposed to the ornate or art deco style, was designed to create the illusion of being located in a romantic far-off place – a Spanish courtyard, complete with twinkling stars and crescent moon in a dark night sky. There are tile covered buildings with lighted windows, balconies and turrets, silhouetted and backlighted by the glow of a village beyond. In the shadows rise mountains covered with cypress and palm trees. Greco-Roman columns support the proscenium. Further back are Mediterranean and Spanish renaissance influences, but the overall decor is Mission Revival. The restored 1929 Historic Hanford Fox Theatre, with its 889 seats downstairs, is the largest sloped-floor auditorium in Kings County. The theater is currently used for live performance and movies.

**Kings Art Center.** Located at 605 N. Douty Street in downtown Hanford, the Kings Art Center's mission is to enhance the lives of Kings County residents and friends by providing a center to experience the visual arts. The Kings Art Center provides hands-on art education coupled with high quality exhibitions of artwork from throughout California as well as from local artists. The Kings County Art League, originally founded in 1946, is a group of working artists and arts enthusiasts who support programming at the Kings Art Center. The League hosts the Kings Art Center's exhibition receptions and organizes two exhibitions each year. The Kings Art Center Guild is a group of art supporters dedicated to raising funds for the benefit of the Kings Art Center.

**Hanford Civic Auditorium.** In 1923, construction began on an assembly hall known as the Civic Auditorium. The hall was dedicated in 1924. The main auditorium is utilized extensively by community groups and organizations, and the City Council and Planning Commission meet regularly in the Council Chambers.

**Hanford Veteran's Memorial Building.** The Veteran's Memorial Building opened in 1926. It was the first building honoring veterans in California that was built under a new state law that authorized the use of public monies for veterans facilities. Since 1981 the building has been used as a seniors center.

## 5.8 Scenic Resources

**Scenic Highways.** The California Department of Transportation (Caltrans) has not officially designated any routes within or around the Planning Area as scenic highways. However, SR 198 from Highway 101 to Sequoia National Park is eligible for scenic highway status.

When a city or county nominates an eligible scenic highway for official designation, it must identify and define the scenic corridor of the highway. Scenic corridors consist of land that is visible from the highway right of way, and is comprised primarily of scenic and natural features. Topography, vegetation, viewing distance, and/or jurisdictional lines determine the corridor boundaries. The city or county must also adopt a Corridor Protection Program. There are five legislatively required elements for such a Program:

- Regulation of land use and density of development
- Detailed land and site planning
- Control of outdoor advertising
- Careful attention to and control of earthmoving and landscaping
- The design and appearance of structures and equipment

**Scenic Lands.** The County has not designated any specific scenic resources within the Planning Area. All designated scenic lands are located in the southwest and along the Kings River in the northern and western areas of Kings County.

**Open Space Buffers between Communities.** The Kings County General Plan policies recommend that the visual identities of communities be preserved by maintaining open space separations between urban areas.

The County has specifically identified the west side of 13th Avenue between Lacey Boulevard and Front Street (UPRR tracks) as an agricultural open space buffer to maintain physical separation of the urbanized areas of Armona and Hanford. There is no specifically identified separation area between Hanford and Home Garden.

## 5.9 Parks and Recreation

### 5.9.1 Regulatory Setting

**Quimby Act.** The Quimby Act permits local jurisdictions in California to require the dedication of land for parks and/or the payment of in-lieu fees for purchase of park land.

The required dedication and/or fees are based upon the residential density, parkland cost and other factors. Land dedicated and fees collected pursuant to the Quimby Act may only be used for the purpose of developing new or rehabilitating existing park or recreational facilities. The dedication of land, or the payment of fees, or both, shall not exceed the proportionate amount necessary to provide three acres of park area per 1,000 persons residing within the new development. .

**Mitigation Fee Act.** The Mitigation Fee Act (AB 1600) permits local jurisdictions to charge fees to mitigate impacts of development including, but not limited to, parks and other recreational facilities. Fees must bear a reasonable relationship to the developers' fair share of the cost of the facilities and must be used solely for the purposes for which they were collected.

### 5.9.2 Park Classifications.

The City of Hanford uses a hierarchy to classify the types of parks and park standards that are desirable for various locations in the city. This hierarchy is an adaptation to local conditions of the National Recreation and Park Association Open Space Standards.

**Mini-Park or Pocket Park.** A Mini-Park is typically under two acres in size and intended to serve the needs of a specific neighborhood within a quarter-mile radius The recommended size is 0.25 acres per 1,000 population. Pocket parks are usually fully landscaped with trees and turf. More urban-style parks include hardscape. Besides residential neighborhoods, they can also be found in downtown areas to serve the needs of shoppers or employees as places to rest or eat.


**Neighborhood Park.** This type of park is primarily for children and families. The Neighborhood Park is usually 5 to 7.5 acres in size. A neighborhood park serves a half-mile radius and the recommended size is 1.00 acre per 1,000 population.

**Community Park.** A Community Park is intended to serve the needs of the entire city especially those living within about a 2-mile radius of the park. Being larger in size, it provides outdoor and indoor facilities that accommodate a much wider range of recreational interests than a Neighborhood Park. Facilities usually include fields and courts for various adult sports. A community park's recommended size is 5.0 acres per 1,000 population.

**Regional Park.** A regional park is a large open space facility designed for active and passive uses. It can be a large natural open space area, or an improved area with fields and courts that usually include lighting. A regional park serves the entire community and often draw people from outside the community, especially for special events.

**Special Use Parks.** Special use parks provide a specific type of recreational activity and are meant to serve the entire community. The BMX Track, Harris Street Ball Park and The Plunge/Skate Park site are examples that provide special programmed park spaces.

**Dual-Purpose Storm Basin Parks.** Some neighborhood, community and regional parks, include storm water detention basins to use the land more efficiently. This allows the site to be used to control urban flooding, recharge groundwater systems and provide recreational use. Careful design can allow the storm basin to be used for recreation when not filled with water.

**Indoor Recreation Facilities.** Indoor recreation facilities allow for public gathering places for a variety of social and recreational activities. Larger facilities serve the entire community while smaller facilities may serve a large neighborhood or a certain portion of the community. The Civic Center Auditorium, Coe Hall, Longfield Center, St. Brigid's Teen Center, and the Veterans-Senior Center, are examples of indoor recreational facilities.

**School Parks.** All school sites have limited public access since their primary purpose is to support the educational mission of the school districts that control their use. There are 16 school sites within the Hanford. These facilities are sometimes accessible to the public during school hours in some cases. The schools are evenly distributed however there are no schools within a walkable distance south of Houston Avenue.

### 5.9.3 Existing Parks and Recreation Facilities

Hanford currently has 21 parks and 5 City-operated indoor facilities. They are listed in Table 5-4. Their locations and service area radii are shown in Figure 5-5. There are nine parks classified as Mini Parks in Hanford. Many of these parks are located in the northern area of town, in newer residential developments north of Grangeville Road, except for Hye Park (located in the east central area of town), Airport Park, and the Longfield Center Grounds (located south of SR 198). Large portions of the city do not include mini parks within the fabric of the older neighborhoods, including the outlying central core, and most of the western half of the city (both north and south of SR 198). Of the City's 11 developed neighborhood parks, nine provide picnic facilities, and ten provide playground apparatus. Specialized recreational facilities (e.g., tennis courts, swimming pool, ball fields) exist at seven of the City's facilities. The most common specialized facilities are lighted ball fields. Community parks are intended for more adult-oriented and organized sport activity.

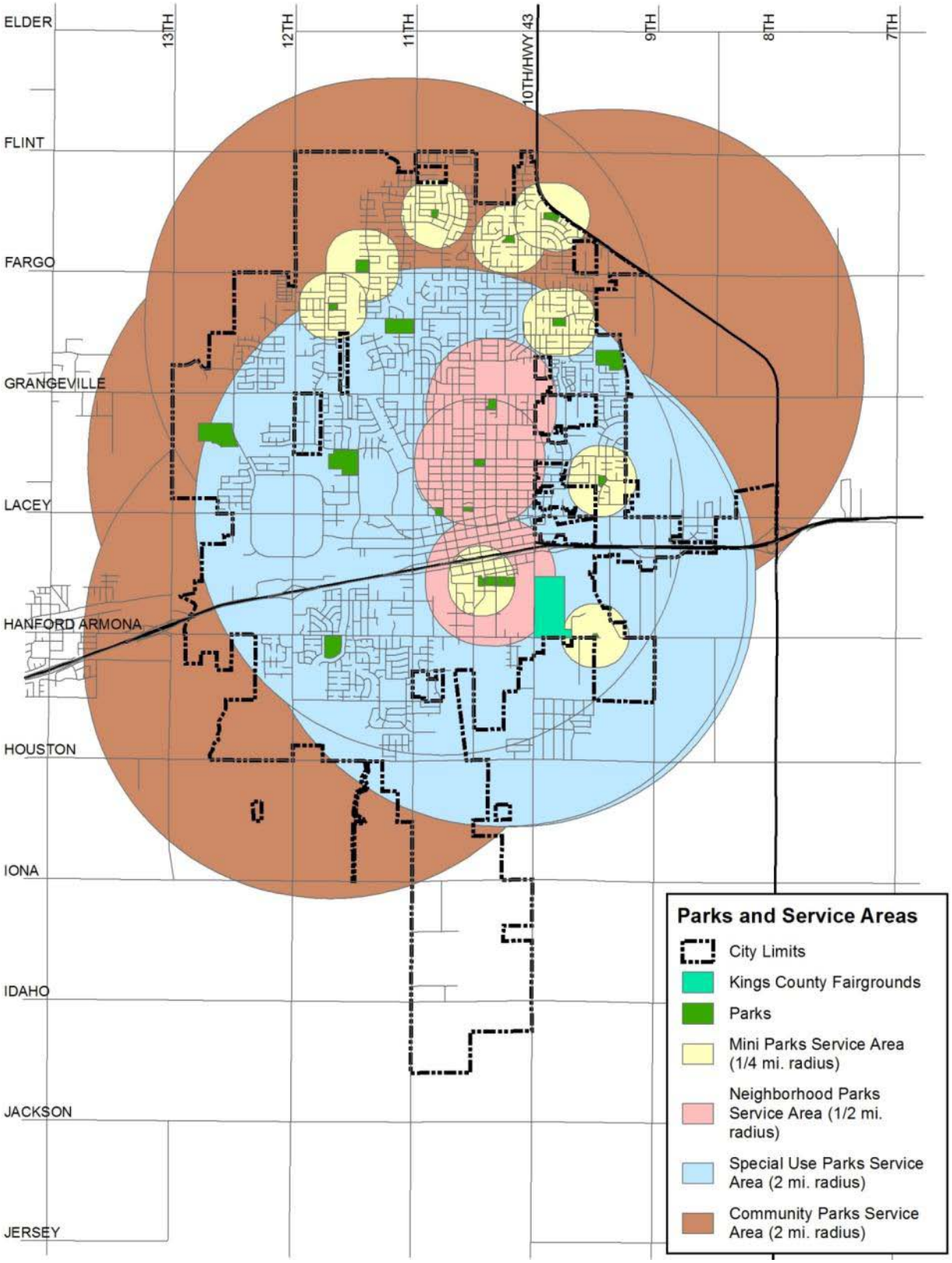
*According to a survey identified in the 2009 Parks, Recreation, and Open Space Master Plan, the most highly used parks by Hanford's youth include Freedom Park, Hidden Valley Park, Centennial Park and Coe Park.*

Two facilities operate as teen centers - Longfield and the Teen Center at Civic Park. The Longfield Center on S. Douty Street has a gymnasium for basketball, racquetball, volleyball, a weight room, and a game room for billiards, video games and ping-pong tables. The gymnasium capacity is 300 and is available for event rentals. "The Party Zone" at the Hanford Teen Center is located at 400 N. Douty Street.

## *Table 5-4: Existing Hanford Pak and Recreation Facilities*

| CLASSIFICATION | NAME OF FACIILITY | ACRES |
|---|---|---|
| Mini-Park | Airport Park | 0.9 |
| Mini-Park | Encore Park | 1.9 |
| Mini-Park | Hye Park | 2.7 |
| Mini-Park | Lakewood Park | 2.7 |
| Mini-Park | Longfield Center Grounds | 2.2 |
| Mini-Park | Quail Run Park | 2.1 |
| Mini-Park | Sherwood Park | 3.3 |
| Mini-Park | Stone Crest Park | 1.4 |
| Mini-Park | Vineyard Park | 1.8 |
| Neighborhood Park | Coe Park | 4.1 |
| Neighborhood Park | Earl F. Johnson Park | 4.2 |
| Neighborhood Park | Lacey Park | 2.7 |
| Community/Special Use Park | Bob Hill Youth Athletic Complex | 26.2 |
| Community Park | Centennial Park | 14.4 |
| Community Park | Civic and Courthouse Grounds | 6.1 |
| Community Park | Freedom Park | 16.7 |
| Community Park | Hidden Valley Park | 36.0 |
| Regional/Special Use Park | Hanford Joint Use Softball Complex | 32.0 |
| Special Use Park | BMX Track | 4.7 |
| Special Use Park | Harris Street Ball Park | 4.4 |
| Special Use Park | The Plunge and Ford Hill Skate Park | 2.0 |
| Indoor Facility | Civic Center | N/A |
| Indoor Facility | Coe Hall | N/A |
| Indoor Facility | Longfield Center | N/A |
| Indoor Facility | St. Brigids' Teen Center | N/A |
| Indoor Facility | Veterans-Senior Center | N/A |
| **TOTAL ACRES** | | **172.5** |

*Figure 5-5: Park and Recreation Facility Service Area Map*



### 5.9.4 Other Open Space Areas

**Community Gardens.** Two community gardens currently operate in Hanford. The City Recreation Department operates the Hanford Community Gardens, located at the corner of S. Douty Street and 2nd Street next to the Longfield Center. The Hanford Community Garden has 30 garden plots available at no cost to the public. The only requirement is that they be well maintained and cared for throughout the year. The Adventist Health Central Valley Network operates the Greenfield Community Gardens located on Greenfield Avenue, near the Kerr Outpatient Center. The one third-acre site features a greenhouse, 30 garden plots, and tool shed.

**Medians and Parkways.** City of Hanford Parks and Recreation maintains the medians on city streets, as well as a limited number of parkways (the landscaped area between the street curb and the property line). These areas are landscaped, irrigated, and include sidewalks. The city has no natural open space where trails may be located and these strips often provide pedestrian access from neighborhoods to schools, shopping, and jobs.

**Park Maintenance Staffing.** In 2009, staffing levels were at one employee for every 10.3 acres of park, and City-maintained medians and parkways. Due budget cuts required by the economic downturn, in 2013 staffing levels were at one employee for every 17.3 acres. There is no specific ratio identified as the adequate ratio, and only a few cities have adopted specific ratios: The City of Burbank uses a ratio of 4.39 acres per employee (2009) and the City of Anaheim uses a ratio of 10.52 acres per employee (2009) to provide park maintenance ("Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards" by David N. Ammons).

### 5.9.5 Regional Parks and Facilities

Hanford residents enjoy the use of three County parks which provide regional recreational opportunities. Burris, Laton-Kingston and Hickey Parks are all located outside the Planning Area, but they do meet some of the need for regional parks for Hanford. In addition, the County Fairgrounds, which is within the Planning Area, is operated by volunteers.

**Burris Park.** Burris Park is located approximately 12 miles north of Hanford and offers a combination of active and passive recreation including an outdoor education facility. Burris Park is also the home of the Kings County Sportsman's Club.

**Laton-Kingston Park.** Laton-Kingston Park is located on the Kings River approximately 10 miles north of Hanford in Fresno County. The focus of the park is primarily passive recreation. The park's beach areas are very popular for sunning and swimming when the Kings River is flowing. Laton-Kingston Park is a 102 acres with 22 acres developed in trees and turf. The park has two picnic shelters, picnic areas, BBQs, tables, a playground, and restrooms.

**Hickey Park.** Hickey Park is located approximately 8 miles northwest of Hanford. This is the most highly used park in Kings County. This park offers a combination of passive and active recreation.

**Kings County Fairgrounds.** The Kings County Fairgrounds are located on S. Tenth Avenue between Glendale Avenue and Hanford-Armona Road and west of the Hanford Municipal Airport. The Fairgrounds host the annual Kings Fair in early July. The Kings Speedway hosts stock car and sprint car racing events from February through October and the Swap Meet/Flea Market meets on weekends. The buildings are available to be rented for home shows, weddings, quinceaneras, and other events. Attendance at the Kings Fair is ranges from 33,000 to 40,000 people during the four days that it operates. The equivalent of approximately 100 jobs is created as a result of spending by the Kings Fair. The Kings Fair has been in operation since 1945.

### 5.9.6 Special Events

Hanford hosts array of special events to attend throughout the year. Many of these events are provided by Main Street Hanford and the Hanford Chamber of Commerce. These events are popular and are attended by residents as well as non-residents. They include:

- Everybody's Irish St. Patrick's Day celebration held in downtown Hanford in March
- Kings Players at the Temple Theater live performances from March through December
- Cinco De Mayo on May 5
- Homecoming Week Parade in mid-May
- Thursday Night Marketplace in early May to late September
- The Kings Fair: during the Fourth of July period
- Cruise Night and Multicultural Festival in early September - classic cars on display, cultural performances, and craft and

food booths offering history and a taste of each featured culture

- Blues and Roots Festival in mid-September
- Special Olympics Chili Cook-Off is held in late September - chili booths, food and vendor booths, live entertainment, a beer garden, and car show
- Kings Art Center Annual Gala in late September - semi-formal fund raising dinner for the numerous programs offered at the Kings Art Center
- Renaissance Fair during the first weekend of October
- Witches Night Out in late October - lady's night costume event in downtown Hanford
- Moon Festival during the first Saturday in October - celebrates Chinese history and culture.
- Hanford Christmas Parade during the last week of November - high school marching bands, floats, custom cars, service clubs, youth groups, and local dignitaries.
- Wine & Chocolate Tasting in early December - a holiday season event that includes live music and caroling


# CHAPTER 6

# PUBLIC FACILITIES & SERVICES

# CHAPTER 6
# PUBLIC FACILITIES & SERVICES

## 6.1 Introduction

This chapter describes existing public services and utilities in Hanford. Each type of public service has a unique set of constraints, and each service must adapt to growth and change differently. This chapter describes the capacities and levels of service for various public and private facilities, services, and utilities serving Hanford. The chapter is divided into the following sections:

- Water Supply
- Wastewater
- Stormwater Drainage
- Solid Waste Disposal & Recycling
- Dry Utilities
- Law Enforcement
- Fire Protection
- Emergency Services
- School Facilities
- Other Public Buildings & Services

## 6.2 Water Supply

### 6.2.1 Regulatory Setting

**Federal Safe Water Drinking Act.** Because of the health concerns associated with arsenic, Congress implemented the Safe Drinking Water Act (SDWA). SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many

actions to protect drinking water and its sources. In accordance with the SDWA, all community water systems are required to monitor the arsenic concentrations in their systems.

Arsenic has been a constituent of ongoing concern for the City of Hanford. Some wells have been abandoned because of high arsenic concentrations. New wells have been drilled at much greater depths to obtain better quality water. The EPA Arsenic Rule will greatly impact the City's water supply.

**California Administrative Code Title 22.** The Safe Drinking Water Act (SDWA) of 1974 gave the United States Environmental Protection Agency (EPA) the authority to set standards for contaminants in drinking water supplies. The EPA was required to establish primary regulations for the control of contaminants that affect public health and secondary regulations for compounds that affect the taste, odor, or aesthetics of drinking water. Under the provisions of the SDWA, the California Department of Health Services (DHS) has the primary enforcement responsibility. California Administrative Code Title 22 establishes the DHS authority and stipulates State drinking water quality and monitoring standards.

**California Senate Bill 610.** Senate Bill 610 (SB 610) requires projects subject to the California Environmental Quality Act (CEQA) that meet the following criteria to prepare a Water Supply Assessment (WSA):

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor area.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor area.
- A proposed hotel or motel, or both having more than 500 rooms.
- A proposed industrial, manufacturing or processing plant, or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified in this subdivision; or

- A project that would demand an amount of water equivalent to or greater than the amount of water required by a 500 dwelling unit project.

Additionally, SB 610 requires that the proponents of a project subject to CEQA identify the public water system(s) that would supply water to the project; and requests that the agency managing the public water system(s) prepare a specified WSA.

**Urban Water Management Planning Act.** In 1983, the California Legislature enacted the Urban Water Management Planning Act. This Act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually shall prepare and adopt an Urban Water Management Plan (UWMP). Water suppliers are required to prepare a UWMP within a year of becoming an urban water supplier and update the plan at least once every five years.

It is the intention of the Legislature to permit levels of water management planning commensurate with the number of customers served and the volume of water supplied. The Act states that urban water suppliers should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry and multiple dry years. The Act also states that the management of urban water demands and the efficient use of water shall be actively pursued to protect both the people of the State and their water resources.

The State Department of Water Resources (DWR) has designed its urban planning assistance program to assist urban water suppliers to meet the requirements of the Act. Program staff assists urban water suppliers with preparing comprehensive and useful UWMPs, implementing water conservation programs and understanding the requirements of the Act.

### 6.2.2 Existing Conditions

The City of Hanford water system is a groundwater system. Groundwater in the Hanford area is contained in both an unconfined and confined aquifer lying beneath the city. No surface water is used by the water system. Water is pumped from 13 deep wells; wells are drilled to a minimum depth of 1,500 feet. The well depth is determined by the water quality. The groundwater supply is recharged by rain and snowfall in the Sierra Nevada range and, to a lesser degree, from rainfall on the Valley floor. In addition to natural water recharge, the City of Hanford, in cooperation with the Peoples Ditch Company and the Kings County

Water District, delivers excess water flows from the Kings River, along with storm water runoff, into the drainage and slough basins located throughout the city to help replenish groundwater in surplus years. Other sources of groundwater recharge in the area include percolation from storm water basins, local waterways, and agricultural irrigation.

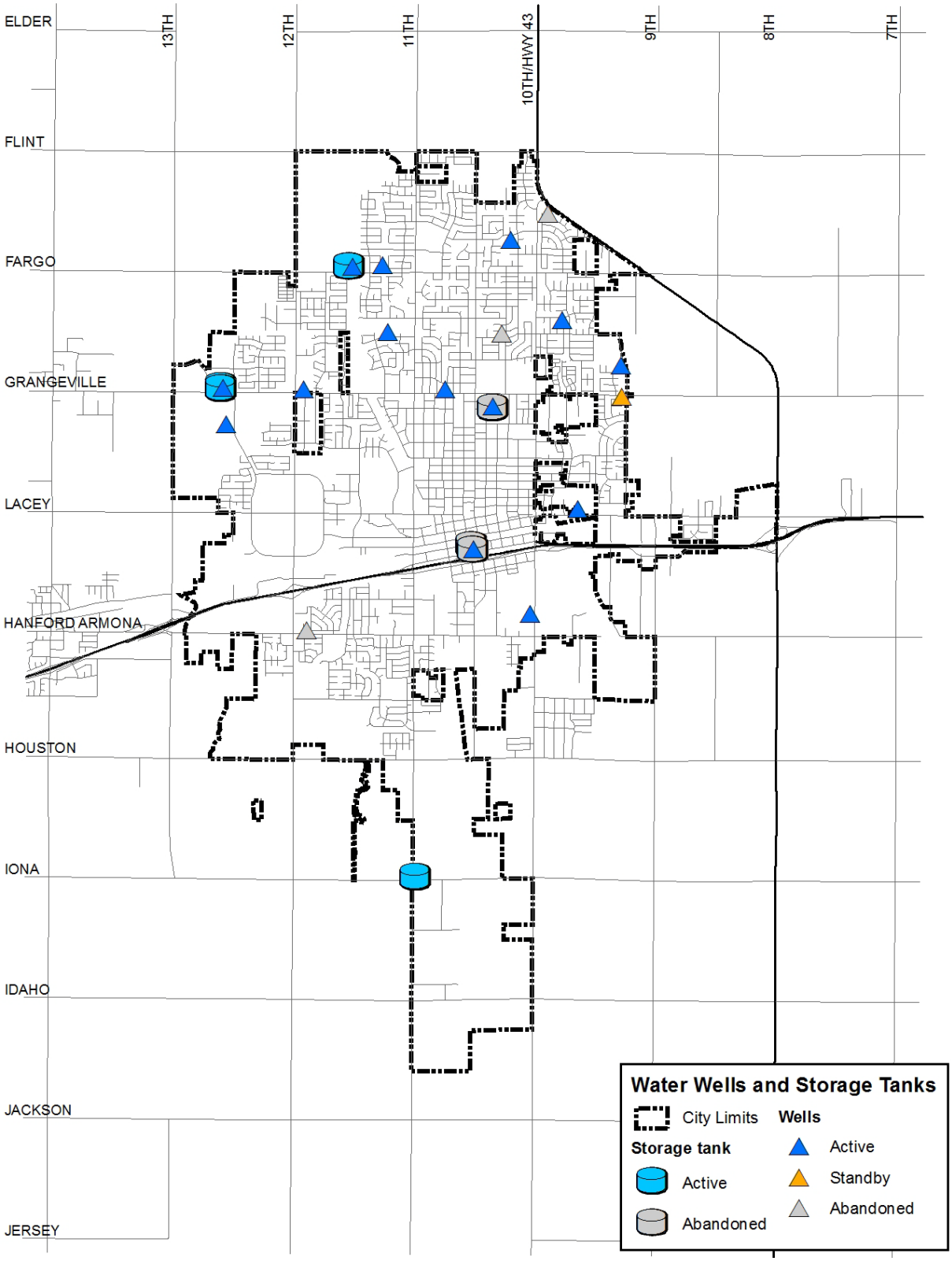
The DWR has subdivided California into 10 separate hydrologic regions that correspond to the State's major drainage basins. Hanford is located within the Tulare Lake Hydrologic Region. The City's water supply consists solely of groundwater from the Tulare Lake Groundwater Subbasin. This section summarizes the groundwater basin underlying the city.

Hanford's water wells and storage tanks are shown in Figure 6-1. Hanford's water distribution system includes 8-inch to 30-inch pipes with 12-inch mains laid out on an approximately one mile grid. Expansion of the system will require continued looping of lines and expansion of fire flow reserve facilities. There are few, if any, system constraints for future development.

**Groundwater Basin Description.** The groundwater underlying the city is located within the San Joaquin Valley Groundwater Basin. This basin contains multiple interconnected subbasins that transmit, filter, and store water. Hanford is specifically located within the Tulare Lake Groundwater Subbasin. According to the DWR, the Tulare Lake Subbasin covers a surface area of approximately 524,000 acres (818 square miles) in Kings County. It is bounded on the south by the Kings-Kern county line, on the west by the California Aqueduct, the eastern boundary of Westside Groundwater Subbasin, and Tertiary marine sediment of the Kettleman Hills. On the north, it is bounded by the southern boundary of the Kings Groundwater Subbasin, and on the east by the westerly boundaries of the Kaweah and Tule Groundwater Subbasins.

The southern half of the Tulare Lake Sub-basin consists of lands in the former Tulare Lakebed in Kings County. The Tulare Lake Groundwater Sub-basin is not an adjudicated groundwater basin. DWR has assigned the sub-basin a 'Type B' groundwater budget, which means that enough data is available to estimate groundwater extraction to meet local water needs, but not enough data is available to characterize the groundwater budget.

*Figure 6-1: Existing Water Wells and Storage Tanks*



**City of Hanford Arsenic Reduction.** The City's requirement to ensure that naturally-occurring arsenic levels in the ground water meet federal and State Environmental Protection Agency (EPA) mandated levels within timeframes as approved by those agencies was met in December of 2010. The recommendations of the arsenic reduction study reduce naturally occurring arsenic levels to the new EPA standards. In cooperation with the State Health Department, the City took older wells off-line and replaced them with new and deeper wells to reduce the level of arsenic in the water supply system.

Prior to 1958, the California Water Services Company operated the water system in Hanford. The City of Hanford purchased the system in 1958. Hanford relies on ground water for domestic water supply. Deep wells approximately 1,500-feet and below the Corcoran clay layer, provide generally good water quality. The City currently meets the Maximum Contaminant Level (MCL) for arsenic in all water wells and has been in compliance since 2010. Arsenic is a naturally occurring element that is found in the underlying sediments of the San Joaquin Valley.

The City maintains 206 miles of main lines and 15,870 service connections. The City has established an ongoing program to replace undersized and aging water mains with larger lines that have the capability to deliver more water and consistent pressure as demand increases. The city has constructed 6 new deep water wells, rehabilitated 2 deep wells, and eliminated 6 old wells with poor water quality. In an effort to use the most cost efficient wells in the system as primary producers, a sophisticated computer control system was installed in 1992. The system is currently being upgraded and is anticipated to be fully functional in spring of 2014.

The City's water system consists of 13 supply wells, 1 standby well, 3 elevated storage tanks (all 3 of which are abandoned), 1 existing 0.5 million gallon ground level storage tank at the Industrial Park, 3.5 million gallon ground-level storage tanks, and a piping network for distributing the water throughout the city (2 million gallon storage tank at Grangeville and Centennial Drive facility and 1 million gallon storage tank at the Fargo Avenue facility).

**Kings County Water District**. The Kings County Water District (KCWD) manages surface water supply east of the city and area groundwater. It is a legal entity formed to provide water management in the northeast portion of Kings County. Since 1954, the KCWD has been responsible for monitoring groundwater levels, implementing

programs to recharge groundwater, and managing water replenishment and waste throughout the county.

### 6.2.3 Planned Improvements

The City's Five-Year Capital Improvement Program for ongoing facility improvements planned for the system includes:

- Replace undersized mains, extensions, and in-fill on the major main distribution grid in various city locations.
- Install new deep water well and associated equipment to provide for additional delivery capacity and service reliability.
- Upgrade existing small mains and older mains that do not meet the City standards for fire protection or delivery of water to consumers.
- Install system (well sites and tank sites) system security measures such as security cameras, anti-climb fencing, lighting, hatch intrusions shut down systems and perimeter alarms in compliance with U.S. Bureau of Homeland Security.
- Modify the current Supervisory Control and Data Acquisition (SCADA) system alarm structure to allow for flexibility in the types and locations of alarms.
- Continue the water conservation program through education and cooperation.

### 6.2.4 Water Conservation Ordinance

During the past drought years of 1976 and 1977, the City adopted a Water Conservation Ordinance for water use and conservation. The City has required water meters on all new construction since 1976. The Public Works Department implements the ordinance to conserve water use in residential areas. The ordinance limits the watering of lawns to specific days of the week, depending on street address, and requires water meters on all new services, residential, commercial, and industrial. Likewise, remodels in excess of $5,000 or installation of a swimming pool require the installation of a water meter. In addition, the City regularly participates in educating the public on water conservation, such as providing tips on the efficient use of water, or assistance in replacing ultra low-flush toilets in older homes.

These water conservation measures have reduced average per capita per consumption to 205 gallons per day. Given water supply issues for urban as well as agricultural uses that have surfaced in the San Joaquin Valley, it is not likely that there will be a relaxation in the water conservation efforts of the City.

The City no longer participates in a water meter conversion program. Property owners are responsible for all flat rates to meter conversion costs.

## 6.3 Wastewater

### 6.3.1 Regulatory Setting

**NPDES Wastewater Permits.** In 1987, the Clean Water Act was amended to establish the National Storm Water Program and the National Pollutant Discharge Elimination System Permits (NPDES) regulatory program. The State and Regional Water Boards identify the sources of pollutants that threaten the quality of the State's waters and regulate those sources by imposing requirements to control the discharge of pollutants The Water Boards issue waste discharge requirements (permits) to individual or groups of dischargers, using information on water quality conditions, the type and characteristics of the discharge, and applicable water quality standards and implementing provisions established in policy, plans, regulations, and laws. One of the types of permits issued is the NPDES (National Pollutant Discharge Elimination System) permit for wastewater. Wastewater facilities are issued permits based on the volume of wastewater discharged. A wastewater discharger with design flow of at least 1 million gallons per day (MGD), or has a pretreatment program, is issued a major NPDES permit; a wastewater discharger with a design flow of 1 MGD or less is issued a minor NPDES permit.

**National Pretreatment Program.** The National Pretreatment Program is a cooperative effort of federal, State and local regulatory environmental agencies established to protect water quality. The program is designed to reduce the level of pollutants discharged by industry and other non-domestic wastewater sources into municipal sewer systems, and thereby, reduce the amount of pollutants released into the environment through wastewater. Limits may be met by the non-domestic source through pollution prevention techniques (product substitution recycle and reuse of materials) or treatment of the wastewater.

Hanford, is required to have pretreatment programs because their total design flows are greater than 5 million gallons per day (5 mgd) and they

receive industrial pollutants that could pass through or interfere with wastewater treatment operations.

### 6.3.2 Existing Conditions

Hanford's existing wastewater system includes a treatment facility south of Houston Avenue and east of 11th Avenue, and 21 sanitary sewer lift stations at various locations throughout the city. The City has plans for pump replacements or upgrades at each of its locations within the next several years.

**Wastewater Treatment Plant.** The City's wastewater treatment facility provides for treatment, disposal, and reuse of effluent which meets all of the State's discharge requirements, for the entire city of Hanford. The City's plant treats nearly 1.75 billion gallons of sewage each year. The facility is a major part of the City's effort to keep the environment clean and to provide a water resource for agricultural irrigation and reuse.

The latest treatment plant expansion was completed in 2004, increasing the City's treatment capacity from 5.5 to 8.0 mgd, equivalent to an additional service for 8,000 new single-family dwellings. The expansion included a new influent pump station, head works, grit removal, oxidation ditch, and irrigation pump station, as well as several modifications to existing buildings and structures.

A one mega-watt solar array was installed in 2012 to produce approximately one-half the electricity needed annually to operate the facility.

**Irwin Street Trunk Main.** There may eventually be some capacity issues with the Irwin Street trunk main south of the Downtown East Precise Plan area. Sections of that line are in poor condition, with adverse grades, inadequate size, and near capacity. The City reports that it intends to upgrade this line sometime in the future, if and when needed. City staff's review of capacity for a new land use with a large waste discharge shows some concern about being able to provide service without upgrading the sanitary sewer system prior to construction of that land use. The Public Works Department is monitoring that line's performance continuously and providing the maintenance necessary to maximize capacity. If the line ever failed to adequately function, the City would do whatever is necessary to upgrade it so as not to inhibit redevelopment or new development. The Public Works Department has studied the matter and believes the amount of redevelopment proposed in the recently approved Downtown East Precise Plan area can be accommodated without further expansion of the subject trunk line.

**Effluent Reclamation.** The City has initiated a program to ensure long-term reuse of treated disinfected wastewater for agricultural purposes and recharge of groundwater supplies for agriculture. The City has obtained a "Master Reclamation Permit" from the Regional Water Quality Control Board for this purpose. Approximately 70-80% of the influent to the wastewater facility is treated, disinfected and reused for agricultural irrigation. Under the regulation of the Regional Water Quality Control Board, this treated wastewater can be used for limited agricultural purposes. At the present time, the City has an agreement with the Lakeside Ditch Company to take the effluent and transport it to agricultural users (the effluent may be mixed with the company's surface water supply when available). The reuse of treated disinfected wastewater accomplishes two important water conservation efforts: 1) the additional supply from the City extends the surface water irrigation season; 2) reduces the need for agricultural pumping of groundwater in an area known to be low in groundwater. The City maintains the option of irrigating land it owns. To ensure long-term feasibility of effluent reuse and preserve agricultural land, the City acquired approximately 1,600 acres of land southwest of the community. This land, when connected to the wastewater treatment facility by a pipeline is capable of accepting reusable treated disinfected wastewater for agricultural purposes.

The new irrigation pump station allows the City to discharge secondary treated disinfected effluent to Lakeside Ditch Company for crop irrigation of over 10,000 acres through a reclamation permit issued by the Regional Water Quality Control Board. Staff is currently in the process of developing a new long-term reclamation project agreement with Lakeside Ditch Company.

As of 2013, the City's Wastewater Treatment Plant capacity appears to be adequate for the medium and long term. Unless water quality regulations change dramatically there will be a continued reliance on reuse of wastewater for agricultural irrigation. The limitations on agricultural crop irrigation reflect State and federal water quality standards used for irrigation. The City has moved forward in the preservation of farmland, with the acquisition of approximately 1,600 acres of land for reuse of treated wastewater. Advantages of reusing treated wastewater are the rich nitrogen content which lowers the fertilizer demand, lower cost of water, and year-round availability.

Satellite water reclamation plants may provide opportunities for reducing demand on existing collection systems or the need to install new collection systems. Satellite water reclamation plants are more

expensive to construct because they produce high quality reclaimed water. Cost effectiveness of this type of plant is achieved when other capital and operation and maintenance costs are avoided. Those avoided costs include: the cost of installing long runs of interceptors, substituting the cost for municipal water to irrigate large open space areas (like golf courses or extensive greenbelt and linear parkways) by the use of reclaimed water. Substantial water conservation is also achieved with the use of reclaimed water for irrigation.

Because the City recycles disinfected secondary effluent on agricultural farmland, this recycled water use does not directly offset potable water use, and therefore will not aid the City in meeting its 2020 per capita water use target identified in the 2010 Urban Water Management Plan. However, the City's recycling program does reduce the amount of water used by farmers in the area that would otherwise come from surface water and/or groundwater sources.

### 6.3.3 Capabilities

The City's wastewater treatment facility is designed to a capacity of 8 million gallons per day (mgd) and is expected to provide for growth to 2018. The next planned upgrade will increase the capacity to 10.5 mgd.

While the capacity of the wastewater treatment plant is not an immediate constraint to growth, the capacity of the collection and transportation system is a major constraint in some areas of the City's Planning Area.

To allow growth east of the existing city a major new interceptor line must be installed to connect this area with the wastewater treatment plant. Extending the collection system will be expensive. Extending a traditional collection system appears to be a long-term cost-effective solution to providing sewer service. The public investment in the City's wastewater treatment facility can be maintained and there is efficiency in operating and maintaining a single facility, especially with the organized reuse of treated wastewater already in place.

However, there are other options available to the City to provide for additional capacity in the collection system when needed. Water reclamation plants have been used in other communities where extension of collection systems has been impractical or there is a need for a source of irrigation water. These satellite tertiary wastewater treatment systems produce reclaimed water for irrigation of open space or potentially certain agricultural crops. Strategic location of such plants, where there are cost advantages, can provide an alternative to extension of sewer interceptors and provide irrigation water for extensive open space needs. The wastewater collection system is basically a gravity

system with lift stations as necessary. A gravity system is the most cost effective and energy conservative system to operate. Major lines are in a north-south orientation directed toward the wastewater treatment plant. The 1990 Sewer System Master Plan recommended system improvements to accommodate buildout within the Planning Area of the city. The growth rate assumptions and projected residential densities are consistent with projections contained in this Background Report. Recommended actions to expand the collection system have been implemented by the City with the adoption of resolutions creating the 12" Avenue and the 9" Avenue Sanitary Sewer Area of Benefit Districts and establishing facility improvement fees for each of the districts.

### 6.3.4 Planned Improvements

The City's Five-Year Capital Improvement Program for planned civic improvements includes the following:

- Upgrades to sewer lift stations 41, 52, 53, and 69;
- Deposit of funds for 2018 expansion of the Waste Water Treatment Plant.

## 6.4 Storm Water Drainage

### 6.4.1 Regulatory Setting

**Clean Water Act.** The Clean Water Act (CWA) is the cornerstone of water quality protection in the United States. The statute employs a variety of regulatory and nonregulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical and biological integrity of the nation's waters so they can support "the protection and propagation of fish, shellfish and wildlife and recreation in and on the water." The CWA regulates discharges from "non-point source" and traditional "point source" facilities, such as municipal sewage plants and industrial facilities. The CWA makes it illegal to discharge pollutants from a point source to the waters of the United States.

**NPDES Stormwater Permits.** In 1987, the CWA was amended to establish the National Storm Water Program and the National Pollutant Discharge Elimination System Permits (NPDES) regulatory program. This two-phased stormwater program was established, incorporating a prioritized approach to stormwater management. Phase I of the program requires discharges from Municipal Stormwater Systems

serving populations over 100,000 to be covered under a NPDES permit. Phase II of the program reduced the population threshold to 10,000 and reduced the area of construction disturbance that requires permit coverage from five-acres to one-acre. NPDES permits cover industrial and municipal discharges, discharges from stormwater systems in larger cities, stormwater associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, and other mining and agricultural operations.

### 6.4.2 History of Flooding and Flood Zones

Hanford is located within a 500-year Flood Zone as defined by the Federal Emergency Management Agencies Flood Insurance Maps. Five-Hundred Year Flood describes the flood that has a 0.2 percent chance of being equaled or exceeded in any year. Areas subject to the 500-year flood have a moderate to low risk of flooding. As expected, no floods have occurred in the area during recent years and therefore, there has not been a need to impede or place building restrictions upon development. A floodplain map of the region is located in Chapter 7: Health and Safety.

### 6.4.3 Existing Conditions

**Adjacent Waterways.** The nearest major waterway to Hanford is the Kings River. It runs southwest about 5 miles north of the city. The second closest waterway is a branch of the Kaweah River system, which flows westward. It is located about 25 miles east of Hanford.

**Irrigation Ditches.** The major irrigation ditches that flow through the city are Lakeside Ditch and the Peoples Ditch. These ditches are operated and maintained privately by Lakeside Water District and the Peoples Ditch Company, respectively.

Water for the Lakeside Ditch is supplied by the Kaweah River system to the east and flows southwesterly on the east side of town. The ditch then continues southward for agricultural irrigation.

Water for the Peoples Ditch is supplied by the Kings River. Agricultural irrigation is the primary use of this ditch, but it also serves as a storm water outfall during high storm water flow periods. North of the city, the Ditch splits into two parts, the East Peoples and Central Peoples Ditches. The East Peoples Ditch flows southward through the center of the city ending at a basin just south of State Highway 198. The Central Peoples Ditch is the main ditch of the two and flows southward along the west side of the city. The ditch continues to the southwest corner of

the city where it discharges to the Weidman Basin or flows into the New Deal Ditch which continues towards Stratford.

Much of the storm water discharging into the People's Ditch first runs through a series of basins before reaching it. These basins allow for sediment fallout and groundwater recharge.

**Storm Drainage System.** The Storm Water Management Plan (SWMP) provides a 5-year comprehensive plan designed to enhance and protect storm water quality in the City of Hanford and the surrounding areas. The SWMP incorporates measurable goals, control measures and public programs to minimize the amount of pollutants discharged through the storm water system.

The existing drainage infrastructure within the boundaries covered by the SWMP includes natural drainage channels, retention basins, natural vegetation, piping, and pump stations. There are numerous areas where storm drainage is controlled via drainage inlets and underground structures.

The storm drainage system consists of 30 pump stations, 57 miles of pipeline ranging in size from 6-inch through 60-inch, and 220 acres of drainage basins and drainage ditches. The storm drainage system removes rainfall from surface streets and disposes the accumulated storm water in drainage basins.

**Stormwater Basins.** The City of Hanford, in cooperation with the Peoples Ditch Company and the Kings County Water District, delivers excess water flows from the Kings River, along with storm water runoff, into the 125 acres of drainage and slough basins located throughout the city to help replenish the groundwater. Some of this acreage is located within the City's park facilities.

### 6.4.4 Storm Water Quality

**Storm Water Management Plan.** The City of Hanford has developed a Storm Water Management Program (SWMP) to comply with State and federal regulations. Storm water originates from rainfall – whatever doesn't soak into the ground runs off into the City's basins and ditches. Storm water starts off relatively free of pollutants, but as it flows over the landscape it picks up substances from roads, parking lots, and lawns and carries these pollutants directly into the basins and ditches. Many of these pollutants are harmful to the plants and animals that live in or adjacent to streams and ponds. The SWMP contains activities to reduce the amount of pollution in the storm water runoff.

**Best Management Practices (BMPs).** The purpose of the SWMP is to implement management tools known as Best Management Practices (BMPs). These are designed to reduce the discharge of pollutants from the Municipal Separate Storm Sewer Systems (MS4s) to the "maximum extent practicable," to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. The target objective will be gauged using a series of Measurable Goals contained in the City's SWMP.

The City's SWMP consists of a list of 6 general BMPs:

1. Public Education and Outreach
2. Public Participation and Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Storm Water Runoff Control
5. Post Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention / Good Housekeeping for Municipal Operations

**Public Education and Outreach.** Best Management Practices for this measure include establishing 'pet waste' control display signs at parks to encourage the proper disposal of pet waste in public areas; a storm water quality section being developed and added to the City's website for public information and education; mass mailings containing a storm water quality message being distributed to local residents biannually; and informational storm water flyers available to the public during City events and on display at city offices and participating retailers.

**Public Involvement /Participation.** Best Management Practices for this measure include the adoption of SWMP ordinances meant to enhance and enforce the City's position on SWMP; City volunteers who participate in stenciling storm drain inlets, culverts, headwalls, and other drainage structures annually; implementation of an oil and automobile coolant recycling program and hotline; a weekly green waste pickup program; and, a regular schedule of street sweeping in coordination with Community Development Department, Neighborhood Clean Up.

**Illicit Discharge Detection and Elimination.** Best Management Practices for this measure include updating a storm sewer map and database to monitor cleanups and address complaints of illicit fluid and solid waste dumping; an inter-department task force assigned to respond to notices of sewage spills, leaks, or dumping of illicit fluid and solid waste; a 24-hour emergency response system for public reporting of

illicit discharges and dumping; a program to track and enforce the prohibition of illicit discharges and illegal dumping using the website, new ordinance and a priority action list; training programs for building and construction inspectors, and any other related municipal staff; and, an ordinance prohibiting non-storm water discharges will be developed.

**Construction Site Storm Water Runoff Control.** Best Management Practices for this measure include the provision of training programs for plan checkers, building and construction inspectors, and any other related municipal staff regarding new municipal water quality control measures and requirements; adoption of a program establishing tiered enforcement, BMP standards, standard SWPPP reviews, and Notice of Intent (NOI) submittal requirements; a standard inspection checklist with measures to establish priority areas of concern; and, the outreach handouts to contractors, including annual (or more often) information training opportunities.

**Post Construction Storm Water Management in New Development and Redevelopment.** Best Management Practices for this measure include the development of technical criteria and guidance for structural and non-structural BMPs appropriate for the City of Hanford and, the training of department staff involved with implementing, maintaining and tracking post-construction requirements and conditions of approval.

**Pollution Prevention/Good Housekeeping for Municipal Operations.** Best Management Practices for this measure include a survey of all departments and facilities for any activities that may contribute pollutants to the storm water system in order to develop and implement facility pollution prevention plans; identification of areas and corrective actions for preventing or reducing pollutant runoff from municipal operations; a training program and seminars for all municipal staff on how to reduce or eliminate storm water pollution from their activities; ongoing visual inspections and evaluation of litter in public areas; and, a SWMP suggestion box placed at the cooperation yard for employee feedback.

### 6.4.5 Planned Improvements

The City's Five-Year Capital Improvement Program for planned civic improvements includes the following:

- Expansion of Scott Street basin north of Hanford-Armona Road
- Increase capacity of main branch of People's Ditch
- New catch basin installation in Downtown East area

- Upgrade pump at N. Harrison Road
- Storm drain improvements at Osprey Street and People's Ditch
- Increase capacity of the Brown Street Main for the downtown area
- Replace main at Magnolia Street and Amber Way
- Install new pump at Stonecrest Basin
- Provide additional capacity for the Sand Slough at Houston Avenue
- Install storm drain pipeline to connect E. Glendale Avenue to Hansen Basin
- Upgrade pump station at Lamplight Estates (Freedom Park Basin) and replace main
- Install pump at Mussel Slough / YMCA Basin

## 6.5 Solid Waste Disposal & Recycling

Nearly every human activity leaves behind some kind of waste. Households create ordinary garbage, industrial and manufacturing processes create solid and hazardous waste, and construction activities leave behind large chunks of debris and inorganic materials. In 2006, U.S. residents, businesses, and institutions, produced more than 251 million tons of municipal solid waste, which is approximately 4.6 pounds of waste per person per day. In addition, American industrial facilities generate and dispose of approximately 7.6 billion tons of industrial solid waste each year.

Cities generally measure their progress on waste reduction and re-use with a measurement called the "diversion rate". Hanford's diversion rate, most recently calculated in 2006, is 53%, which is about the statewide average. This level also meets the 50% required rate under state law since 2007.

The Kings County Waste Management Authority (KCWMA) was formed in September 1989 by agreement between the cities of Hanford, Lemoore, Corcoran, and the County of Kings in order to provide a regional approach to waste management activities in Kings County. The name was changed to Kings Waste Recycling Authority (KWRA).

KWRA, which is managed by the KCWMA, operates a solid waste disposal and recycling facility at 7803 Hanford-Armona Road, near SR 43 and SR 198, in the southeastern portion of the city. The facility does not accept hazardous waste except for specified days when it permits local residents to drop off their household waste that is considered hazardous (e.g., batteries, paint, used motor oil, cooking oil, etc).

### 6.5.1 Regulatory Setting

**Assembly Bill (AB) 75.** AB 75 was passed in 1999, and the State Agency Model Integrated Waste Management Act (Chapter 764, Statutes of 1999, Strom-Martin) took effect on Jan. 1, 2000. The act mandates that State agencies develop and implement an integrated waste management plan which outlines the steps to be taken to achieve the required waste diversion goals. Current statutes require all State agencies and large State facilities to divert at least 50 percent of their solid waste from disposal facilities on and after Jan. 1, 2004. State law also requires all businesses that generate 4 or more cubic yards of waste weekly to recycle. The California Department of Resources Recycling and Recovery (CalRecycle) assists agencies in their implementation of waste prevention, reuse, and recycling programs to reduce waste. These statutes spurred California to the success it now enjoys: a diversion rate equivalent of 65%, and a beverage container recycling rate of 82%. The City of Hanford has instituted a "greenwaste" collection mixed recyclable collection program for single family residential customers.

**Assembly Bill 341.** California's Legislature and Governor Brown, through enactment of AB 341, (Chapter 476, Statutes of 2011) has directed CalRecycle to propose a plan for the next step in the evolution of California's solid waste stream management. The law establishes a policy goal for California that not less than 75% of the solid waste generated shall be source-reduced, recycled or composted by 2020. It also requires CalRecycle to provide a report to the Legislature by January 1, 2014 detailing strategies to achieve that policy goal. Instead of focusing primarily on local diversion, the law calls for the State and the Department of Resources Recycling and Recovery (CalRecycle) to take a statewide approach to decreasing California's reliance on landfills.

CalRecycle's recommendations will be presented as a report to the Legislature in January 2014. The report will reflect strategies already being implemented, as well as any that CalRecycle proposes to reach the statewide goal. The City of Hanford will revisit this issue in the General Plan Update process when the report is issued.

**1995 Integrated Waste Management Plan.** The City of Hanford and Kings County have cooperatively developed the Integrated Waste Management Plan (1995). This Plan contains the mandatory elements of a Source Reduction and Recycling Element (SRRE) and a Household Hazardous Waste Element (HHWE). In addition, this document contains a Siting Element and the Non-Disposal Facility Element for Hanford. This Plan has been accepted by the California Integrated Waste Management Board.

### 6.5.2 Solid Waste Collection and Processing

The KWRA is a key element that helps the City of Hanford meet the State's recycling goals. Refuse from both municipal and commercial haulers is sorted at the KWRA facility to recover recyclable materials, including: wood/green waste processed for compost, ferrous/metallic items, plastic and glass, newspaper, scrap paper, junk mail, magazines, paperboard, and cardboard.

The KWRA does not operate an active landfill. Waste is hauled by transfer trucks from the Material Recover Facility (MRF) to the State-permitted 320-acre Chemical Waste Management Landfill site in Kettleman Hills, approximately 45 miles west of the MRF. A combined MRF and Transfer Station (TS) was constructed near the old landfill southeast of Hanford. The MRF and TS facility includes a small but complete Household Hazardous Waste collection station.

KWRA operates the MFR and TS as an enterprise function, with all revenue coming from solid waste disposal fees and sale of recovered recyclable materials and compost. Responsibilities of the KWRA include the siting, permitting, financing, construction and operation of landfills, and a MRF and TS. Additional responsibilities include all activities and waste diversion goals required by the State and the closure, post-closure monitoring and liabilities of all identified former landfills in Kings County. The closed 95-acre KWRA landfill southeast of Hanford began operation in 1973. The facility reached capacity in March of 1992, and its closure was completed in 1998.

## 6.6 Dry Utilities

### 6.6.1 Gas and Electric Service

Pacific Gas & Electric Company (PG&E) and Southern California Edison Company (SCE) both supply electricity to Hanford. Within the Study Area, PG&E provides power to sites that are located south of Iona Avenue and north of Flint Avenue via 12 kv and 70 kv lines. SCE

supplies power to sites north of Iona Avenue and south of Flint Avenue via 12 kv and 66 kv lines.

The City may want to consider undergrounding overhead utilities within alleys to become more pedestrian friendly in nature and to attract redevelopment. The City would have the option of declaring an Underground District and utilizing Rule 20A funds, if available, for SCE's facilities. Undergrounding may also take place without declaring Underground Districts by utilizing a Rule 20C option, the entire cost of which the City would be responsible for paying. The cost to underground private utilities is extremely expensive. For example, the subject of using available Rule 20A funds was brought up during the Downtown East Precise Plan project in 2011-2012. The suggestion was to consider an undergrounding of the overhead utility in the alley between 7th and 8th streets from Harris to China Alley. The City receives approximately $100,000 annually from SCE. A project of this size is estimated to cost $1.5-2 million.

### 6.6.2 Communication Systems

AT&T and Comcast are currently available in Hanford. AT&T provides telephone services that include ISDN and all other necessary high-technological services. Many cellular and long-distance services are also available. Comcast, Dish Network, and Direct TV provide television services as well as internet access.

## 6.7 Law Enforcement

### 6.7.1 Existing Conditions

The Hanford Police Department (HPD) currently operates out of a single station located at 425 North Irwin Street. In 2002, the General Plan found that "this facility, while adequate for current programs and community demands, offers little room for expansion to meet increasing needs of the police services. As growth continues in Hanford additional sworn officers and support staff will be required." In 2002, the population of Hanford was 43,600. In January 2013, the population was 55,470, an increase of nearly 12,000 residents.

For cities with a population the size of Hanford that are not surrounded by larger urban areas, a ratio of 1.1 to 1.2 sworn officers per 1,000 resident is typically employed. Table 6-1 shows the ratio for Hanford and number of other surrounding cities.

***Table 6-1: Police Officers per 1,000 Residents - Hanford and Neighboring Cities***

| Police Officers per 1,000 Population | |
|---|---|
| Avenal | 2.37 (2013) |
| Corcoran | .76 (2011) |
| Fowler | 1.64 (2010) |
| Hanford | .99 (2013) |
| Kingsburg | 1.22 (2011) |
| Lemoore | 1.17 (2010) |
| Selma | 1.32 (2011) |
| Tulare | 1.17 (2013) |
| Visalia | 1.07 (2010) |

The HPD employs 55 sworn officers, for a ratio of .99 police officers per 1,000 Hanford residents. As of November, 2013, the HPD consists of one Chief of Police, 2 Captains, 3 Lieutenants, 4 Sergeants, 31 Patrol Officers, 3 Traffic Officers, 4 School Resource Officers, 4 investigators, 2 Gang Task Force (GTF), and 1 Narcotics Task Force (NTF).

The HPD's actual average response times are 6:30 minutes for Priority 1 Incidents with an average of 32 Priority 1 Incidents per day and a response time of 17:19 minutes for all incidents with an average of 144 incidents per day. The department seeks to maintain a response time of less than 2:30 minutes. The HPD dispatches both for police and fire services.

The 8,600-square-foot police station on Irwin Street was built in 1976, with a projected 20-year life span. It's now in its 37th year. HPD has had to expand into two nearby 2,000-square-foot buildings to house its investigations and records divisions. The department stores thousands of pieces of evidence in eight locations throughout the three buildings. Additionally, the department faces increased calls for service caused in part by AB-109 prison realignment and growing problems with gangs and drugs. Hanford's population has grown by more than 2,000 residents since 2009, when the HPD received 169,995 calls for service. That number is projected to reach 185,287 in 2013. Despite the growing need, the number of sworn officers has been reduced from 57 to 55. If local staffing was comparable to a city like Tulare, Hanford would have about 10 additional officers.

*Table 6-2: Highest Crime Areas (2012)*

| Rank | Boundaries | Number of Incidents |
|---|---|---|
| 1 | Elm St, 7th St, 10th St, Douty St | 4,649 |
| 2 | Elm St, Lacey Blvd, Irwin St, Douty St | 4,127 |
| 3 | Lacey Blvd, 9th Ave, 10th Ave, Grangeville | 3,783 |
| 4 | Lacey Blvd, Hwy 198, 11th Ave, Douty St | 3,131 |
| 5 | Hwy 198, Hanford-Armona Rd, 10 1/2 Ave, 11th Ave | 3,055 |
| 6 | Grangeville, Elm St, 10th Ave, Douty St | 2,705 |
| 7 | Lacey Blvd, Hwy 198, Campus Dr, 12th Ave | 2,528 |
| 8 | Hwy 198, Hanford-Armona Rd, 11th Ave, 11 1/2 Ave | 1,636 |
| 9 | Lacey Blvd, Hwy 198, Campus Dr, 12th Ave | 1,469 |
| 10 | Lacey Blvd, Hwy 198, 12th Ave, 12-1/2 Ave | 1,413 |
| 11 | Cortner St, Grangeville, 11th Ave, Heron Dr | 1,330 |
| 12 | Elm St, Lacey Blvd, Irwin St, 11th Ave | 1,290 |

**Recently Adopted Ordinances.** Currently, Lacey Park and the Civic Square are areas where the homeless tend to congregate. Hidden Valley is another park that has seen an increase in homelessness. An ordinance that went into effect in March, 2013 has been effective at reducing the number of shopping carts piled with possessions. The ordinance makes it illegal to possess a shopping cart. In October, 2013, the City Council approved an ordinance making it unlawful to loiter or remain in any park between 10 p.m. and 6 a.m. without a permit. The ordinance is meant to prevent people from sleeping in the park overnight. There are currently five homeless shelters in Hanford.

**Region V - California Fire and Rescue Mutual Aid System.** The state is divided into six mutual aid regions to facilitate the coordination of mutual aid. Through this system the Governor's Office is informed of conditions in each geographic and organizational area of the state, and the occurrence or imminent threat of disaster. Hanford is located within Region V, which includes seven counties – Kings, Kern, Tulare, Madera, Fresno, Mariposa, and Merced.

The Mutual Aid System is an agreement in which two or more parties agree to furnish resources and facilities and to render services to each and every other party of the agreement to prevent and combat any type of disaster or emergency. The Mutual Aid System was established in 1961, and has been used to restore order during emergencies, including civil unrest and to provide assistance to local agencies during other

unusual events. The Mutual Aid System is based on four organizational levels: cities, counties, regions and the State. California is divided into six Law Enforcement Mutual Aid Regions. The County Sheriff is a key role player within the system. Each sheriff serves as the Regional Mutual Aid Coordinator.

In previous years, the City of Hanford has assisted neighboring municipalities such as Tulare and Fresno and vice versa through the mutual aid system. Planned events, such as concerts, parades, fairs, etc. are the responsibility of local agencies. Any requirement for additional public safety presence must be addressed through contractual arrangements.

**Voluntary Mutual Aid.** Mutual aid is voluntary when an agreement is initiated either verbally or in writing. When in writing, which is preferable, the conditions may be enumerated as to what and how much of a department's resources may be committed. The California Fire Service and Rescue Emergency Mutual Aid Plan provides a practical and flexible pattern for the orderly development and operation of mutual aid on a voluntary basis between cities, cities and counties, fire districts, special districts, county fire departments, and applicable State agencies. Normal fire department operating procedures are utilized, including day-to-day mutual aid agreements, and plans which have been developed by local fire and rescue officials. Currently, the City of Hanford provides voluntary mutual aid to Kings County for the unincorporated areas of the County in and around Hanford. Hanford currently shares mutual aid with the following jurisdictions: Lemoore, Visalia, Fresno, Kings County, and NAS Lemoore.

### 6.7.2 Crime Prevention Programs

**Citizen's Police Academy.** The purpose of the Citizen's Police Academy is to enhance police/community relations. The HPD believes the success of crime prevention and detection lies primarily with a strong relationship and partnership with the community. The HPD believes the better the community gets to know the men and women of the police department the more they can accomplish together.

The Hanford Citizen's Police Academy is designed to give members of the community an overview of what police work is really like. The Citizen's Academy is a miniature version of the police training academy. Participants receive classroom training in subjects that vary from criminal law to undercover operations.

After successful completion of the Citizen's Academy citizens have the ability to apply for a position on the HPD's Citizens on Patrol program.

This organization is an all-volunteer program made up of members of the community who donate their time to make a difference in the community. Some of the duties that the Citizens on Patrol perform are parades, area checks, subpoena services, requests for assistance, parking citation, assist officers with calls for service, and they also may donate their time to represent the HPD at an event.

**Crime Free Multi-Family Housing Program (CFMHP).** On July 20, 1998, the HPD began the Crime Free Multi-Housing Program. The Crime Free Multi-Housing Program is a state-of-the-art, crime prevention program designed to reduce crime, drugs, and gangs on apartment properties. This program, first developed at the Mesa Arizona Police Department in 1992, consists of three phases that must be completed under the supervision of the local police department. Property managers can be individually certified after completing training and the property becomes certified on successful completion of all three phases. The Crime Free Program Coordinators provide local training and certify apartment properties in their community. Fully certified properties have reported reductions in police calls for service up to 70% over previous years. The benefits of a Crime Free Multi-Housing Program include:

- A stable, more satisfied tenant base and an increased demand for rental units with a reputation for active management
- Lower maintenance and repair costs. Increased property values
- Improved personal safety for tenants, landlords, and managers
- Reduced exposure to civil liability

**Junior Police Academy.** The Junior Police Academy (JPA), was originated by the National Association of Veteran Police Officers (NAVPO), and is currently being taught in over 2,000 locations throughout the United States. Hanford is proud to say that Hanford High is the first school district to offer this course in the Central Valley. The program strengthens the partnership between the school and the HPD.

All parties involved, the students, school district, and the HPD have received benefit from this program. The students have gained valuable experience and training in law enforcement, knowledge of how and why police do what they do, learned about our laws and our system of courts,

and are exposed to the forensic science and technology used in modern law enforcement.


**Neighborhood Watch.** The Neighborhood Watch program is a program dedicated to improving the quality of life in Hanford's neighborhoods. It is citizens and police working in partnership. Basically a Neighborhood Watch is a cohesive body of concerned citizens addressing issues that concern their neighborhood. It is about empowering the citizens to help reduce their chances of being victimized by crime through education and teamwork. It involves neighbors getting to know each other, and citizens being trained to recognize and report suspicious activities in their neighborhoods.

**Problem Oriented Policing Program.** The Problem Oriented Policing (P.O.P.) program, was funded through a grant received from the Department of Justice and was instituted within the HPD in 1997. The P.O.P. program is designed to enhance the overall image of the HPD through formal and informal contact with the community; to enhance the quality of life for all citizens; and to exchange communications and ideas between citizen groups, service clubs and neighborhoods with crime prevention, criminal enforcement and a reduction of the crime rate being the ultimate result.

This specialized unit focuses on community involvement through creative partnerships with citizens to perform problem identification, crime analysis, and selective enforcement. The purpose of the unit is to identify specific crime-related problems within the community, target and address the issues, and to work with the community to eradicate crime.

**Ride-Along Program.** In the spirit of enhancing police relations with the community, citizens are encouraged to participate in the HPD's Ride-Along program. The purpose of the program is to provide first hand insight into the police operations of the city. Contemporary law enforcement demands require a close working relationship and cooperation between police and the community.

**School Resource Officer Program.** The purpose of the School Resource Officer (SRO) is to enhance the overall image of the HPD and the school district through formal and informal contact with students. This program helps to create and encourage desirable behavior on the part of the youth of this community. It helps to promote a safe environment in and around the schools to exchange wholesome communications and ideas between students, parents, faculty and police officers. The ultimate goal is crime prevention, good citizenship and healthy relationships between all parties.

**Gang Resistance Education and Training (GREAT).** The G.R.E.A.T. Program is a school-based, law enforcement officer-instructed classroom curriculum. The program is intended to reduce delinquency, youth violence, and gang membership. G.R.E.A.T. has developed partnerships with nationally recognized organizations, such as the Boys & Girls Clubs of America and the National Association of Police Athletic Leagues. These partnerships encourage positive relationships among the community, parents, schools, and law enforcement officers. Lessons focus on providing life skills to students to help them avoid using delinquent behavior and violence to solve problems. The program consists of four components: a 13-session middle school curriculum, an elementary school curriculum, a summer program, and families training.

**Kings County Gang Task Force.** The HPD is proud to be part of the Kings County Gang Task Force in conjunction with other agencies in Kings County. The mission of the Kings County Gang Task Force will be to significantly diminish the gang violence in Kings County and apprehend the responsible offenders, thereby increasing public safety.

**Kings County Narcotics Task Force.** The mission of the Kings County Narcotic Task Force is to significantly diminish the availability and use of illegal drugs in the County of Kings and apprehend the responsible offenders, thereby increasing public safety.

**Graffiti Abatement Program.** Victims of graffiti vandalism will have the graffiti removed by the City at no cost as long as they complete the Authorization for Graffiti Removal Waiver form with the City.

**Hanford P.A.L** The Hanford Police Activities League (PAL) was established is a city-wide, after-school crime prevention program to provide outreach to local youth and build positive relationships between youth, police officers, and the community. The mission of Hanford P.A.L. is to foster a bond with mutual trust and understanding between police officers and youth through interaction in a non-confrontational setting. A variety of educational and recreational programs and activities are offered to youth ages 7 to 17 years, with an emphasis placed on reaching those who are "at-risk". Currently, the HPD does not have a Police Athletic League (PAL) officer. The objectives of the PAL program are:

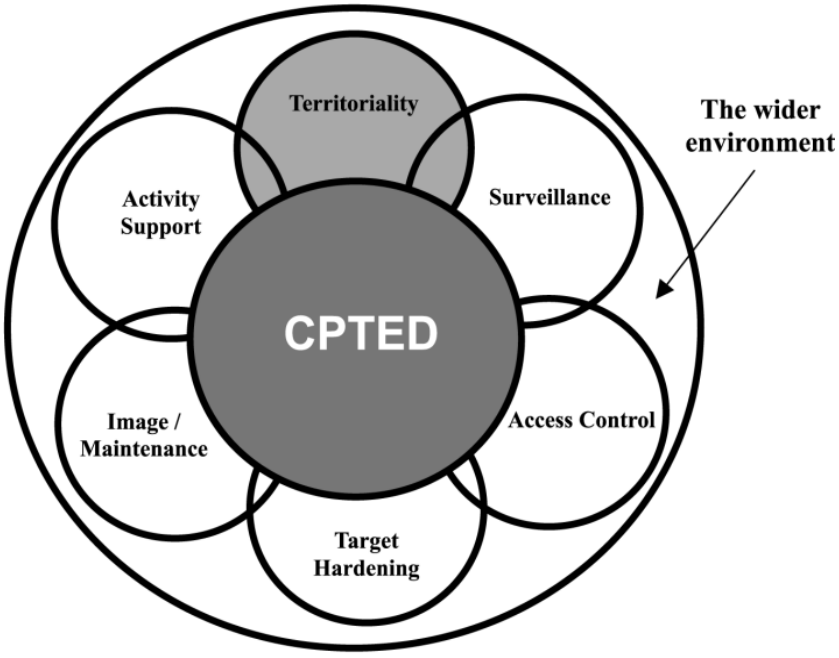
- Provide youth an opportunity to grow under the sustained guidance of dedicated adults
- Instill in youth a respect and understanding for law enforcement officers and for the laws they uphold

- Assist youth in developing self-esteem and provide them with skills to help stay them in school
- Involve police officers, parents, and community volunteers in personal commitments of time, talents, and energy to the youth of the community

### 6.7.3 Crime Prevention through Environmental Design

Crime prevention through environmental design (CPTED) is a multi-disciplinary approach to deterring criminal behavior through environmental design. It seeks to dissuade offenders from committing crimes by manipulating the physical environment in which those crimes might occur. As of 2012, most implementations of CPTED occur solely within the built environment. Changing the areas we reside in to deter criminals from committing acts in our communities is the main goal of CPTED. With urban design and the planning that goes into the creation of new, and reformation of older, communities, citizens in these neighborhoods and places of business can feel safer at all hours. The three most common built environment strategies applied in CPTED are natural surveillance, natural access control, and natural territorial reinforcement.

Natural surveillance increases the perceived threat of apprehension to a criminal, who believes he can be seen. Natural surveillance can be implemented by designing sites in such a way as to maximize visibility and foster social interaction among legitimate users of both private and public space. Natural access control attempts to limit the opportunity for crime by taking steps to clearly differentiate between public space and private space. It is accomplished through the conscientious placement of entrances and exits, fencing, lighting, and landscaping, so as to limit access or control flow of ingress and egress to an area.




Finally, territorial reinforcement promotes social control through a heightened definition of space and ownership. An environment designed to clearly

delineate private space creates a sense of ownership. “Owners” typically have a vested interest and are more likely to challenge intruders. This also creates an environment where "strangers" or "intruders" stand out and are more easily identified.

Proper design and effective use of the built environment can lead to a reduction in the incidence and fear of crime. Safe, clean, and attractive neighborhoods promote bustling public spaces. When places are active with people and provide clear visibility into and out of public spaces, potential offenders are less likely to commit crimes because of all the “eyes-on-the-street.” Bad behavior is deterred due to the higher risk of getting caught.

## 6.8 Fire Protection

### 6.8.1 Regulatory Setting

**California Fire Code.** In accordance with California Code of Regulations, Title 8, Division 1, Chapter 4, the California Division of Occupational Safety and Health (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hosing sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all fire fighting and emergency medical equipment.

**California Uniform Fire Code.** The Uniform Fire Code (UFC) contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the UFC include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards, safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other fire-safety requirements for new and existing buildings.

### 6.8.2 Existing Facilities and Programs

The Hanford Fire Department provides service from two fire stations. Station 1 is located at 350 W. Grangeville Boulevard and Station 2 at 10553 Houston Avenue. Hanford is divided into two fire response districts: Station 1 covers the city limits north of SR 198 and Station 2 covers the city limits south of SR 198.

Hanford Fire Department is expected to surpass 5,000 calls for service between the two stations in 2014. In 2013, firefighters responded to 4,749 calls. Of those, just 26.67% had response times of five minutes or

less, the time necessary to prevent the chances of a fire flashover or irreversible brain death if a person has stopped breathing.

**Fire and Rescue Personnel.** The following guidelines are identified in the International City/County Management Association (ICMA) Yearbook (2011). ICMA identifies leading practices to address the needs of local governments and professionals serving communities globally. The Yearbook recommends 1.02 firefighters per 1,000 population. With that recommendation, the Hanford fire department would have 55 fire suppression personnel. Currently, the department has 27 fire suppression personnel, which is a ratio of .49 firefighters per 1,000 population.

NFPA 1710 is a standard concerning engine and ladder company crew size to respond with the appropriate number of firefighters in the minimum amount of time to fires and medical emergencies. The standard calls for 4 firefighters to arrive at a fire scene within 5 minutes, 90% of the time. The 5-minute standard includes 1 minute to get into turnout gear. The standard also calls for 14 or 15 people to arrive at a "Full Alarm Assignment" within 9 minutes, 90% of the time. The 9-minute standard includes 1 minute to get into turnout gear. Currently the Hanford Fire Department can put a maximum of 7 firefighters on an emergency incident at any given time.

As previously noted, the Fire Department's current ratio of firefighters to population is .49 per 1,000 residents. The national average is 1.3 per 1,000 and the statewide average is .92/1,000. The neighboring city of Tulare currently staffs .70 firefighters per 1,000.

**Response Time and Station Location.** In June 2006, Matrix Consulting Group was hired by the City of Hanford to conduct a fire station location study. The study provided an assessment of the current station network and an evaluation of current and future station needs. The study looked at 5 to 15 year population projections with estimated total increases of more than 38,000 residents and nearly 3,000 calls for service. The optimal performance level is that the Hanford Fire Department should reach approximately 90% of the total calls for service within four minutes of drive time by the arriving unit and the second unit should reach approximately 90% of the total calls for service within eight minutes of drive time. At the time of the study, Hanford had two station locations: 1) Grangeville and Redington and 2) Houston Avenue between 10-½ and 11th avenues. Performances of these two stations are projected to reach 66% of calls for service within four minutes and 75% of calls in eight minutes (by two stations). At the time of the study, Matrix recommended that the City should build a station at

Grangeville and Vintage by 2008, a second station at Hanford-Armona Road by 2010, and a fifth station at Lacey Boulevard and 9¼ Avenue by 2016. As of 2006, no additional stations were constructed. The study also stated that these "timeframes should be adjusted for the rapidity of development" within each of the planning study areas. Shortly after the study, development slowed within Hanford due to the economic recession.

The Matrix study also mentions the future growth of 1,700 residential units with a projected population of approximately 5,160 new residents in the northwestern section of Hanford. The five station scenario noted above does not cover this area.

It should also be noted that the Hazards Management Element of the Hanford General Plan (2002) indicates that two additional fire stations are needed to maintain acceptable standards based on population and area of growth considered by the 2002 Land Use Map. Two sites were identified as desirable locations for a future fire station: 1) 12th Avenue at Woodland and 2) Florinda at 9-1/4 Avenue.

Two additional stations would place the majority of the city within that five-minute zone. The new stations would also prevent delays caused by passing trains. There are about 50 trains a day that pass through Hanford, any of which could cause a delay in response time.

In comparison, Tulare has one station for each 18,600 residents while Hanford has one fire station for each 27,700 residents.

To date, two properties for future fire stations have been purchased. The City currently owns sites at Centennial Drive and Berkshire Lane and Florinda Street at 9-1/4 Avenue planned for future fire stations.

**Service Call Origination.** The highest percentage of current service calls to the Hanford Fire Department originate in an area south of Grangeville, west of Tenth Avenue, north of Center Street, and east of Douty Avenue. A second highest percentage of calls also originate from 11th Avenue between Pepper Drive and Fargo Avenue. A high percentage of calls also originate from the Lacey corridor from 12th Avenue to the western city limits, the downtown core, and 11th Avenue between Grangeville and Hidden Valley Park.

The Hanford Fire Department responds to approximately 4,400 emergency and non-emergency incidents per year. Emergency medical calls make up the majority of the responses.

If a fire overwhelms the first arriving on scene crews, a general alarm or mutual aid with neighboring fire departments is activated, which

summons all off duty personnel and/or neighboring fire departments to the incident.

The Hanford Fire Department is capable of responding to other situations such as hazardous material incidents, high and low angle rescues, confined space emergencies, vehicle accidents, public assists, state-wide mutual aid responses and disaster management. Crews are on duty 24-hours a day, 365 days per year.

## 6.9 Emergency Services

### 6.9.1 City Emergency Services Facilities

The Hanford Fire Department provides emergency services to Hanford and the other communities and adjacent unincorporated lands in its service area. Emergency services provided by the department include technical rescue, hazardous materials response, emergency medical services, and emergency disaster management.

**Fire Prevention**. The Fire Prevention Division is responsible for controlling hazards in the community that would lead to loss of life or property by fire, hazardous materials incidents or any other emergency situation that may occur. To accomplish this task the Fire Inspector along with the Fire Chief develops public safety codes, adopts codes and ordinances, completes development plan reviews, maintains the Fire Prevention division records, enforces various codes and performs public safety educational programs.

Another effective tool used against fire and life loss is the Public Education Program. The Inspector and suppression personnel present safety programs to the community. Fire and Burn Safety, Holiday Safety, CPR, Earthquake/Disaster Preparedness and Poison Safety are some of the topics the Hanford Fire Department offers. The fire department performs over 200 presentations each year.

The Hanford Fire Department enforces the 2013 California Fire Code, 2010 California Building Code, the Hanford Municipal Code, and the State of California Health and Safety Code. Inspection of occupancies may be performed annually, bi-annually, monthly, or quarterly depending on the type of inspection and type of building use. Plans for new buildings are checked for proper adherence to the adopted codes prior to construction.

**Emergency Preparedness.** The City of Hanford has the responsibility to plan for and respond to disasters resulting from hazards that are known to threaten our City. In view of this fact, the City of Hanford

has established an emergency management program to provide overall planning and coordination for emergencies. The Emergency Preparedness Division through the Emergency Preparedness Plan will ensure the most effective and economical allocation of resources for the maximum benefit and protection of its population in times of emergency.

The Emergency Preparedness Division will develop and update as needed an Emergency Operations Plan (EOP) which will provide specific guidance to departments and employees during disasters, develop contingency plans, as necessary and within political and budgetary constraints. The Emergency Preparedness Division will also develop and maintain competent program staff, adequate funding, and the familiarization of other City personnel with their disaster responsibilities.

The Emergency Preparedness Division through the Emergency Operation plan and training will establish the emergency organization, assigns tasks, specifies policies and general procedures and provides for coordination of planning efforts of the various emergency staff and service elements in compliance with the Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS).

### 6.9.2 Private Emergency Transport Facilities

Ambulance service is provided by American Ambulance. American Ambulance is the sole 911 provider for the exclusive operating area of Kings County and Fresno County. American Ambulance employs over 550 personnel and maintains almost 100 ground and air ambulance vehicles. Other area services offer only non-emergency medical transport.

## 6.10 School Facilities

### 6.10.1 Regulatory Setting

**California Department of Education Standards.** The California Department of Education has published the Guide to School Site Analysis and Development to establish a valid technique for determining acreage for new school development. Rather than assigning a strict student/acreage ratio, the guide provides flexible formulas that permit each district to tailor its answers to accommodate its individual conditions.

**Education Code Section §17620.** Section 17620 authorizes any school district to levy a fee on development projects within the district for the construction or reconstruction of school facilities (subject to the limitations set forth in Government Code §65995), provided the district can show justification for levying the fees.

**Government Code Section §65995.** This section governs the consideration of impacts and mitigation related to schools conducted pursuant to CEQA. It limits the County to charging no more than the statutorily required impact fees authorized under §17620 to offset school impacts, unless the school district conducts a School Facilities Needs Assessment and meets specific conditions. Section 65995 states that the payment of a fee, pursuant to Education Code §17620 and in the amount specified in §§65995.5 or 65995.7 of the Government Code, will fully and adequately mitigate the provision of school facilities related to new development. This section also prohibits the County from disapproving a project based on the inadequacy of school facility fees, or the project applicant's refusal to provide school facilities mitigation.


### 6.10.2 Existing School Facilities

There are six elementary school districts and one high school district within the Planning Area. The district boundaries are shown in Figures 6-1 and 6-2. There are also private schools that are affiliated with religious organizations.

**Hanford Joint Union High School District**. The Hanford Joint Union High School District (HJUHSD) educated 2,811 students in 2009 from three comprehensive high schools - Hanford High School and Hanford West High School along with Earl F. Johnson Continuation School, and Hanford Adult School. A third comprehensive, state-of-the-art high school - Sierra Pacific High School - opened on August 13 2009 with 217 freshman students.

Hanford High School and Hanford West High School each serve approximately 1,700 students. Earl F. Johnson High School serves about 250 students. Hanford Adult School serves a wide variety of students through its many and varied programs. Sierra Pacific High School is the only HJUHSD school currently open for Intra-District transfers. Sierra Pacific High School was built because two existing comprehensive high schools, Hanford High School and Hanford West High School, were over their enrollment capacities. The second phase of Sierra Pacific High School will include additional buildings such as an administration building, a second academic building, a wrestling room, a pool an aquatics center, maintenance facilities, library and media center

according to student growth and the need. All three high schools are located north of SR 198.

**Hanford Elementary School District**. In 2013, Hanford Elementary School District had an enrollment just over 5,800 students. The following are the schools in the District. They are all within the Planning Area.

- Hamilton Elementary School
- Lee Richmond Elementary School
- Lincoln Elementary School
- Martin Luther King Elementary School
- Monroe Elementary School
- Roosevelt Elementary School
- Simas Elementary School
- Washington Elementary School
- John F. Kennedy Junior High
- Woodrow Wilson Junior High
- Jefferson Elementary School

**Pioneer Union Elementary School District.** The following schools are in Pioneer Union Elementary School District. They are all within the Planning Area.

- Pioneer Elementary School
- Frontier Elementary School
- Pioneer Middle School

**Kings River-Hardwick Union Elementary School District.** This District operates one elementary school, Kings River-Hardwick Elementary School. It is located on Excelsior Avenue, outside and north of the Planning Area.

**Kit Carson Union Elementary School District.** This District operates one elementary school, Kit Carson Elementary School. It is located of 7th Avenue, just outside and east of the Planning Area.

**Lakeside Union Elementary School District.** This District operates one elementary school, Lakeside Elementary School. It is located on Jersey Avenue, south and outside of the Planning Area.

**Armona Union Elementary School District.** This District operates three schools: Only the charter school is within the Planning Area.

- Armona Elementary School
- Parkview Middle School
- Crossroads Charter School

**Private Schools.** The following are private schools in Hanford:

- St. Rose-Thomas McCarthy Catholic School
- Western Christian School
- Hanford Christian School
- Heritage Christian Academy

### 6.10.3 Planned School Facilities

The planning and preferred siting of future schools will need to be determined as a component of the General Plan Update process. The consultant team, the CAC, and the City of Hanford will work closely with the school districts to identify goals and policies for new school locations. As of 2013, no new schools have been identified.

*Figure 6-2: High School Attendance Area Map*

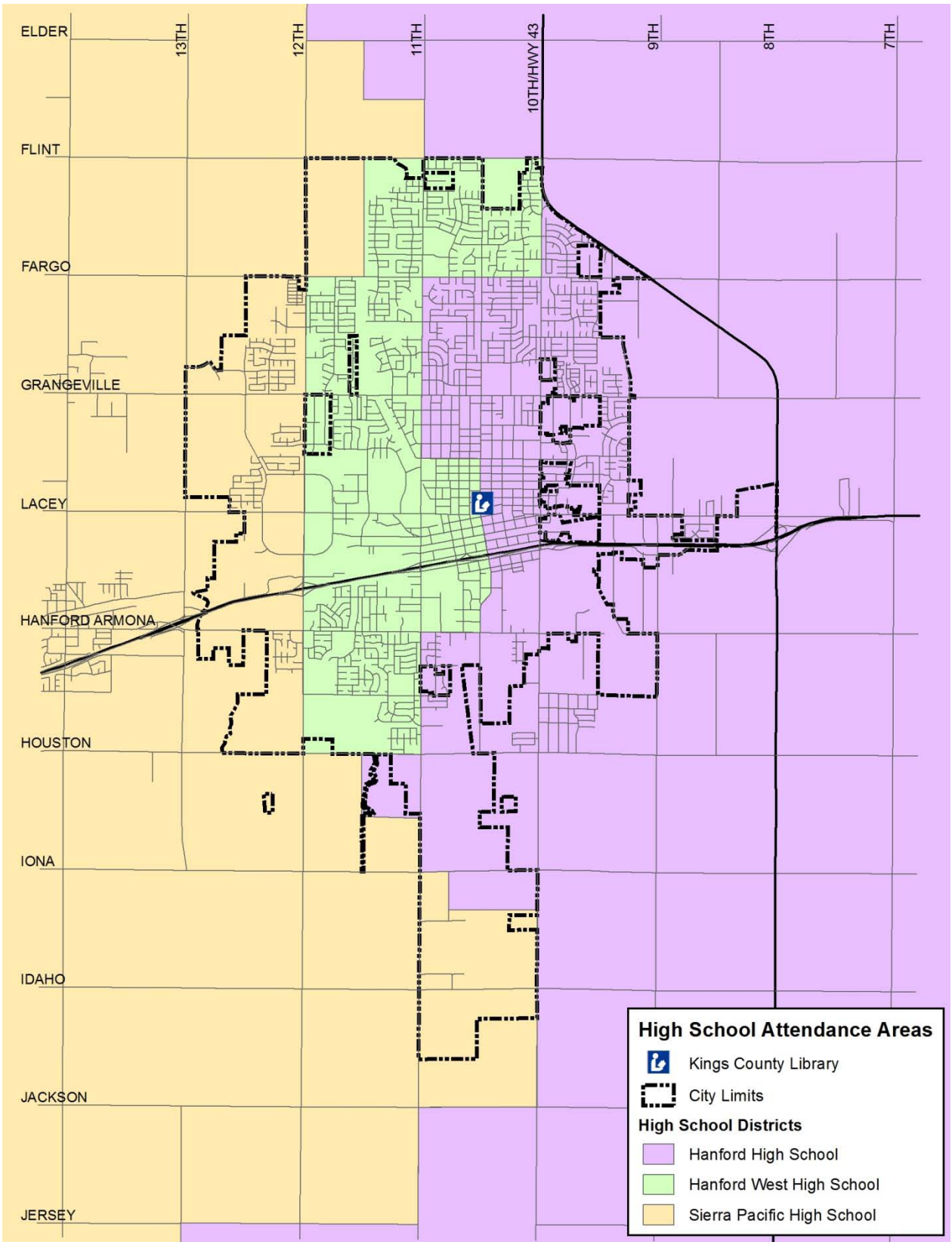
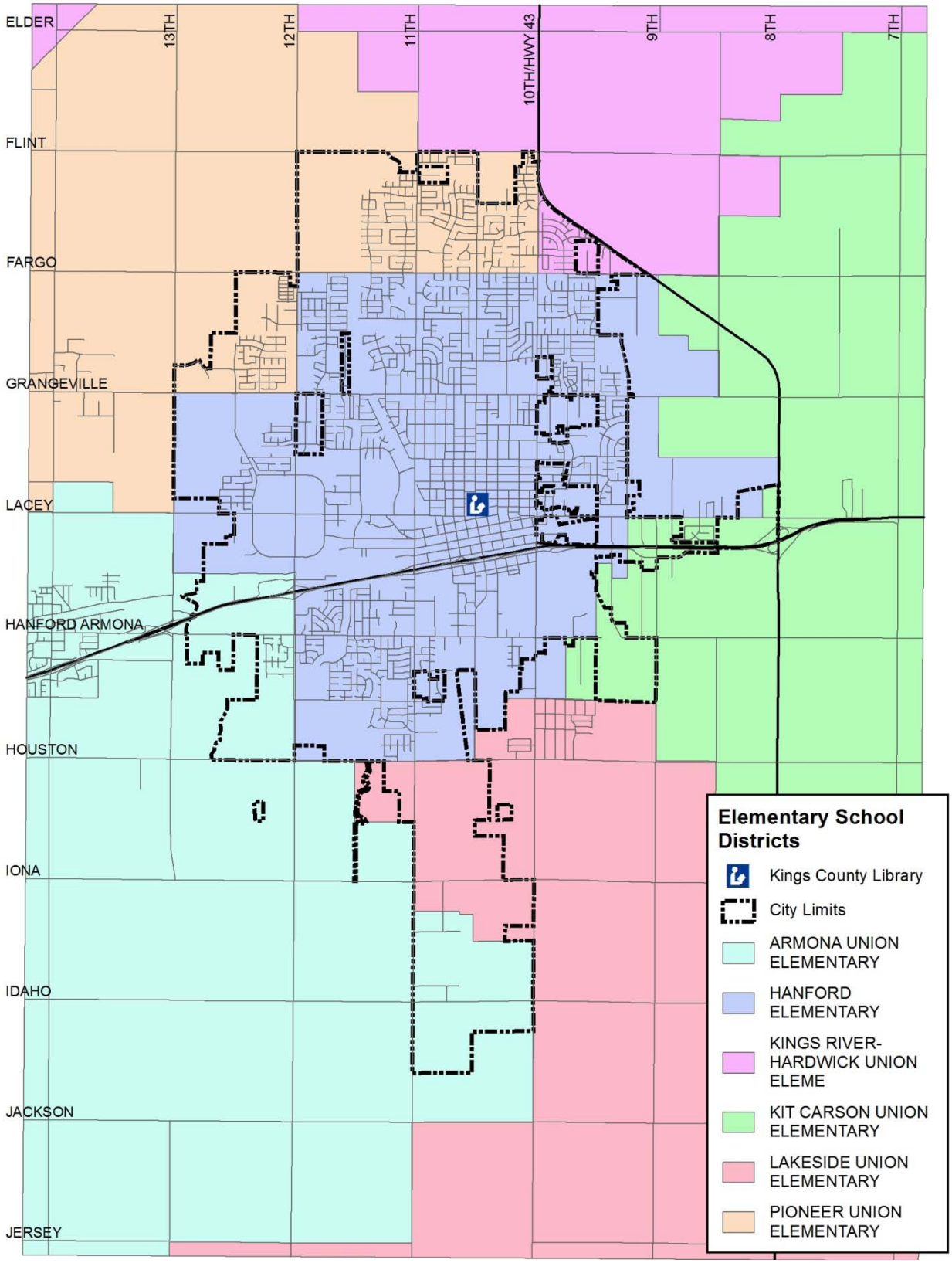


*Figure 6-3: Elementary School Districts Map*



# 6.11 Other Public Buildings & Services

## 6.11.1 Regulatory Setting

California libraries rely on a variety of federal, State, and local sources, as well as private contributions. Federal funds come primarily in the form of grants to individual libraries that meet specified criteria. At the state level, the Public Library Fund (PLF) provides per capita allocations to public libraries and the California Library Services Act (CLSA) provides partial reimbursements for direct and interlibrary loans. County library systems are divided into two separate categories for purposes of local operational funds: 1) general fund libraries and 2) libraries with a dedicated property tax rate. Hanford's library is a County Dedicated Property Tax Library. Twenty-four counties imposed a separate property tax for libraries before Proposition 13 (1978). This property tax rate still generates revenues, all of which are dedicated to county library services.

**County Ordinance 633.** On June 21, 2005, the Kings County Board of Supervisors adopted Ordinance 633, which enabled public facilities fees to be levied on new development within the county. The fee structure was based on a Public Facilities Impact Fees report and was established to maintain existing levels of service through the year 2025. The public facilities fees are allocated to specific uses for protection and public services including: Countywide Public Protection, Sheriff, Fire, Library, and Animal Control. The City of Hanford also has a development impact fee that is applicable within the Primary Sphere of Influence of the City. The County collects this City impact fee whenever new construction occurs within those territories that are subject to the impact fee.

**California Library Services Act.** California public libraries are supported through funded programs of the California Library Services Act, designed to encourage interlibrary cooperation. In 1964, the Public Library Services Act was passed which for the first time allowed for the creation of cooperative ventures with state funds. During the period from 1964 to 1978 many of the current members of the San Joaquin Valley Library System (SJVLS) participated in the services of the Library System. With the passage of the California Library Services Act in 1978—which replaced the Public Library Services Act—SJVLS gained increased funding with more stability. SJVLS was organized under its present structure in 1979. The member libraries at that time are Coalinga-Huron, Fresno County, Kings County, Madera County, Porterville, Tulare County and Tulare Public.

**County Service Area Law Government Code §25210.** Establishes authority and procedures for county boards of supervisors to use county service areas as a method to finance and provide needed public facilities and services in unincorporated areas. The Hanford Branch of the Kings County Library system provides library services to the nearby unincorporated areas such as Armona, Grangeville, and Home Garden. County libraries are organized under the County Free Library Law. In addition, the County Service Area (CSA) Law allows for the creation of a separate legal entity for library services, or a mechanism to provide financing flexibility within an existing county library system.

### 6.11.2 Existing Conditions

Kings County's first library was a public reading room, established in Hanford in 1891. Books were donated by the citizens of Hanford and funds were raised by sponsoring socials and concerts. In 1902, the Library Trustees met with the City Trustees to propose making an application to Andrew Carnegie for funds to build a new library. The city agreed to procure the land for the building and to provide an annual budget of $1,500 (Hanford Daily Journal, September 19, 1902). The application was successful, and the reading room was replaced in February 1906 when the City library was opened--built with a gift of $12,500 from Andrew Carnegie. Designed in the Romanesque style, this building served as the public library until 1968. The building still stands, and after a renovation in 1974 became the local museum.

Six years after the opening of the City Library, the County Library was established by a resolution of the Board of Supervisors in November of 1912. Initially the County Library operated from the second floor of the Hanford Carnegie Library, and from 1912 to 1935, the Hanford City and Kings County libraries operated as a consolidated system. The Hanford City Library resumed its independent status in 1935, and the County Library was moved to the basement of the courthouse. The County Library was later relocated to a small frame structure on Lacey Blvd near Redington Street. The current library opened in August 1968. Partially funded by a Library Services and Construction Act, Title II Grant, this new facility became the home of both the Hanford City and Kings County libraries. In July 1975 these two libraries were again consolidated, and the Hanford library became a branch of the Kings County Library. The Hanford Branch of the Kings County Library system is located in downtown Hanford at 401 N. Douty Street.

### 6.11.3 Service Area Standards

Although no ratio or standard is required to be met for the number or size of a library based on the population that may use it, currently, in the State of California, County dedicated tax libraries, with their relatively large boundaries, serve a median of 279,000 people. City libraries, with relatively smaller boundaries, serve about 69,000 people. Hanford currently falls within each potential service area. For county dedicated tax libraries, the approximate number of library staff members per 10,000 population averages 2.5. The library currently employs a staff of 16.2 employees. The library is currently adequately staffed based on existing average ratios in the State of California.

### 6.11.4 Adventist Health Medical Center and Hanford Community Medical Center

The Adventist Health Medical Center and Hanford Community Medical Center are located along the West Lacey Boulevard Retail Corridor. Adventist Medical Center-Hanford (AMC-H) is a 142-bed acute-care hospital in Hanford, replacing the former Hanford Community Medical Center. AMC-H serves 19 communities in Kings, Tulare, Kern and southern Fresno counties. The medical center oversees a network of primary care physicians, community care clinics, and residency programs. In 2012, Kings and Tulare county patients gained access to a comprehensive center for treatment of non-healing wounds, with the opening of Adventist Health/Wound Healing Center on Mall Drive in Hanford.

# CHAPTER 7

# HEALTH & SAFETY

# CHAPTER 7
# HEALTH & SAFETY

## 7.1 Introduction

The protection of public safety and property from natural and human-made hazards are concerns that will be addressed in the Hanford General Plan. Some of these hazards occur naturally, such as earthquakes or drought. Other hazards, like floods, sometimes result from human alteration of the natural environment or from building in locations subject to flooding. Additional hazards are completely human-made, including structure fires and exposure to hazardous materials.

The Health and Safety Element will establish goals and policies that work to protect the community from risks of injury, loss of life and property, and environmental damage associated with natural and manmade hazards. This element will also include methods to reduce criminal behavior through environmental design and response objectives for fire and police operations and emergency services. Although it is not possible to prevent or mitigate all hazards and safety issues, their destructive effects can be reduced or avoided through careful planning.

To assist in the development of General Plan goals and policies that protect and enhance public safety, this section identifies the hazards that the Hanford may reasonably expect to face in the future. The chapter is divided into the following sections:

- Hazard Mitigation Planning
- Natural Hazards
- Manmade Hazards
- Noise
- Public Health and Fitness
- Environmental Justice

## 7.2 Hazard Mitigation Planning

The Federal Disaster Mitigation Act of 2000 requires all local governments to create a disaster plan in order to qualify for funding for hazard mitigation planning projects. During fiscal year 2005-2006, the President directed the Secretary of the Department of Homeland Security to develop and administer a National Incident Management System (NIMS), which provides a consistent nationwide approach for federal, state, local, and tribal governments to work together more effectively and efficiently to prevent, prepare for, respond to, and recover from disasters.

### 7.2.1 Kings County Hazard Multi-Jurisdiction Hazard Mitigation Plan (KCHMHMP)

The Kings County Multi-Jurisdiction Hazard Mitigation Plan (KCMHMP), October 2007, includes all of the cities in the county, as well as unincorporated areas. Hazard Mitigation Plans are updated every five years. The City of Hanford participated in the development of this plan and has adopted the multi-jurisdictional plan. The KCMHMP identified eight natural hazards that significantly affect the planning area.

- Drought
- Earthquake
- Extreme Heat
- Flood
- Dam Failure
- Fog
- Freeze
- Tornado

The three goals identified in the KCMHMP are:

1. Reduce impacts of natural hazards to human life, property, and the environment
2. Minimize impacts of natural disasters to agriculture and the economies of communities
3. Implement identified mitigation actions

### 7.2.2 Regulatory Setting

**Hanford Emergency Plan, 2006.** The Hanford Emergency Plan defines the responsibilities of the City staff in emergency situations and provides for the powers and duties of the Disaster Council. Chapter 2.44 - Emergency Services - of the Hanford Municipal Code provides for the preparation and carrying out of plans for the protection of persons and property within the city in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of the city with all public agencies, corporations, organizations and affected private persons. Hanford has adopted Section 6-3 of the Kings County Code of Ordinances providing for disaster council membership. The Disaster Council develops and recommends for adoption emergency and mutual aid plans, agreements, and necessary ordinances and resolutions by the Kings County Board of Supervisors and the city councils of Avenal, Corcoran, Hanford, and Lemoore.

**City of Hanford Municipal Code Section 15.52 Flood Damage Prevention Regulation.** In 1998, the City of Hanford adopted floodplain management regulations. The purpose of Chapter 15.52 of the Hanford Municipal Code is to minimize public and private losses due to flood conditions by restricting certain uses and requiring certain protections in areas of special flood hazards as identified in FEMA Flood Insurance Rate Maps (FIRM). FIRMs have been created for all of Kings County. The ordinance states that flood hazard areas in Hanford may be subject to periodic inundation that could result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, public expenditures for flood protection and relief, and impairment of the tax base. These flood losses are caused by uses that are inadequately elevated, not flood-proofed, or not protected from flood damage.

**International Building Code. Municipal Code Chapter 15.04 – Building and Construction.** The City of Hanford has adopted the standards of the International Building Code 2012 edition. The purpose of the International Building Code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures within the city.

## 7.3 Natural Hazards

### 7.3.1 Drought

Drought is a gradual phenomenon that differs from typical emergency events. Many natural disasters, such as floods or earthquakes, occur rapidly with little time to prepare for disaster response. Droughts occur slowly, often over a multiyear period, and it is hard to determine when a drought begins or ends. Impacts of drought are typically felt first by those most reliant on annual rainfall, such as ranchers engaged in dryland grazing, rural residents relying on wells in low-yield rock formations, or small water systems lacking a reliable source. The drought issue is further compounded by water rights specific to a state or region. Water is a commodity regulated under a variety of legal doctrines.

Droughts are generally widespread events that can affect all of Kings County and surrounding counties. Impacts include water restrictions on domestic supplies, agricultural and livestock losses, and increased costs for water. Secondary effects include increased groundwater pumping that can contribute to land subsidence problems and degraded water quality.

Four multiyear droughts are on record for the last 57 years, which averages to one event every 14 years, or about a 7 percent chance of occurrence in any given year. Based on these probabilities, drought will continue to occur occasionally in the future.

Hanford's primary base economy is services, government, and agriculture. According to the Kings County Economic Development Corporation, agriculture represents an annual 2012 gross value of $2.22 billion in Kings County. Assuming a future drought causes a 20 percent loss of that total value, losses could be in the vicinity of $443 million. Costs would be associated with 1) economic damage to major crops, 2) lost revenues from the fallowing of land, and 3) costs associated with increased groundwater pumping and lowering of the water table.

**Urban Water Management Plan, 2010.** The California Water Code requires urban water suppliers to prepare and adopt Urban Water Management Plans (UWMPs) for submission to the California Department of Water Resources (DWR). The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies

are available for future beneficial use, and provide a mechanism for response during water drought conditions. This plan is to be updated every 5 years. Hanford last updated its UWMP in 2010.

Hanford relies on a groundwater system for municipal water. When drought events deplete the aquifer, water quality decreases and water treatment costs increase. The UWMP assesses the city's vulnerability to different drought scenarios and plans for the actions to be taken during water shortages.

**Water Conservation and Water Meter Program.** The City of Hanford has a water conservation program that limits the use of outdoor watering through regulating the timing and types of outdoor water use. Water meters are required on services for all new construction, remodels in excess of $5,000, or installation of a swimming pool.

**Water Efficient Landscape Design and Irrigation Ordinance Municipal Code, Chapter 12.08.** Assembly Bill 1881 (2006) imposed new requirements on local jurisdictions to adopt by January 1, 2010, either an updated model ordinance to be developed by DWR, or their own water-efficient landscaping ordinances that are at least as effective at conserving water as the DWR model ordinance. Hanford adopted the DWR regulations to establish standards and procedures for landscape designs and installations which are publicly and privately owned and maintained. The intent of these regulations is to develop guidelines for landscapes which utilize reasonable amounts of water and maintain design freedom. The regulations call for reduced water consumption, responsible landscape design, water efficient landscape irrigation practices, and responsible landscape maintenance.

### 7.3.2 Earthquakes

Earthquakes can cause structural damage, injury, and loss of life, as well as damage to infrastructure networks such as water, power, gas, communication, and transportation lines. Other damage-causing effects of earthquakes are surface rupture, fissuring, settlement, and permanent horizontal and vertical shifting of the ground. Secondary impacts can include landslides, seiches, liquefaction, and dam failure.

The degree of earthquake damage depends on many interrelated factors. Among these are the Richter magnitude, focal depth, distance from the causative fault, duration of shaking, type of surface deposits or bedrock, presence of high groundwater, topography, and the design, type, and quality of building construction.

**Geographic Extent and Potential Magnitude.** No major fault systems are known to exist in Kings County. Minor surface rupture could occur in areas of minor faulting, which occur primarily in the southwestern part of the county. Ground shaking is the most likely damaging effect of an earthquake for Hanford. Shaking was felt in Hanford during the Coalinga earthquake with a magnitude of 6.4 in 1983.

The San Andreas fault is located less than four miles west of the Kings County line. Another large known fault, the White Wolf fault, is located to the south near Bakersfield and produced a 7.7 magnitude earthquake in 1952.

There have not been any damaging earthquakes greater than magnitude 6.0 recorded in Kings County in over 200 years, though several have been very close. Geologic studies estimate that over the past 1,400 to 1,500 years, large earthquakes have occurred at about 150-year intervals on the southern San Andreas fault. As the last large earthquake on the southern San Andreas fault was the Fort Tejon earthquake in 1857, that section of the fault is considered a likely location for an earthquake within the next few decades (USGS 1997.)

Soils in Hanford do not have significant liquefaction potential. Hanford is located in a stable geologic formation, so the effects of ground shaking on soil stability should be minimal.

The community's vulnerability is increased due to its large number of unreinforced masonry buildings, many of them historic properties. There are estimated to be 58 unreinforced masonry buildings in Hanford including many of significance to the community, such as the Kings County Courthouse, Masonic Temple, Episcopal Church, and the Hanford Elementary School District offices.

***HAZUS***

*The Federal Emergency Management Agency's (FEMA's) Methodology for Estimating Potential Losses from Disasters.*

There are four seismic zones in the United States ranging from I to IV; the higher the number, the higher the earthquake danger. All of California lies within Seismic Zone III or IV. Stronger construction standards for buildings in Zones III and IV have been adopted in the International Building Code. Most of Kings County is in Zone III. HAZUS estimates that much of the damage to critical facilities and infrastructure will be similar for both scenarios. Hospitals are expected to retain functionality, as are most essential facilities, including schools, police stations, and fire stations. Damage to transportation systems is not predicted.

**Earthquake Mitigation.** To mitigate this hazard, building codes in California have been steadily strengthened over the past 80 years as the understanding of seismic shaking has improved. Current California building codes include provisions for considering the potential shaking from earthquakes, including stronger shaking near faults and amplification by soft soils. The building code has been the main mitigation tool for seismic shaking in most buildings. Hospitals, schools, and other critical facilities are subject to additional mitigation measures.

Older construction and unreinforced masonry buildings are more vulnerable to shaking during earthquakes. Historic buildings can be more susceptible because they have weakened with age and were built before the use of building codes.

### 7.3.3 Extreme Heat

Extreme heat is defined as temperatures that hover 10 degrees or more above the average high temperature for the region and last for several weeks. Extreme heat is largely a public health issue and a livestock issue in agricultural areas. The elderly, small children, invalids, persons on certain medications, and persons with weight and alcohol problems are particularly susceptible to heat waves. The exposure of farm workers to extreme temperatures is also a major concern.

The National Weather Service has a system in place to initiate alert procedures (advisories or warnings) when the Heat Index (HI) is expected to have a significant impact on public safety. The expected severity of the heat determines whether advisories or warnings are issued. A common guideline for the issuance of excessive heat alerts is when the maximum daytime HI is expected to equal or exceed 105°F and the night time minimum HI is 80°F or above for two or more consecutive days.

The climate in Hanford is hot and arid, and is susceptible to extreme heat. The recorded temperatures at the Hanford weather station (1927-2005) reveal the highest temperature on record is 116°F. The average high is 95°F in Hanford in the summer. On average, there are 103 days over 90°F in the summer in Hanford. The hottest months are July and August. Temperatures of 101°F or above are on record for every month from May through October.

In the Hanford area, the agricultural industry is most at risk to extreme temperatures. Hot and cold temperature extremes damage crops,

affecting the economy and potentially resulting in lost farming jobs. Field workers, landscapers, and other outdoor workers are susceptible to heat exhaustion and heat stroke. Elderly residents who live alone and have limited mobility are also vulnerable during heat waves. Problems with power loss and water distribution also occur during periods of extreme heat. Power outages and rolling brownouts can result when high temperatures increase air conditioner use. Power outages can prevent water pumping stations from operating. During 2005-2006, Kings County received USDA emergency designations twice for heat waves. Extreme heat is likely to occur on an annual basis in the future.

Kings County has adopted an Extreme Heat Emergency Plan that identified cooling stations to avoid extreme heat conditions. The sites include the Hanford Mall, Hanford Branch Library, the Kings County Government Center, and the Salvation Army. The City of Hanford has also identified a cooling shelter with a back-up generator for local residents to find comfort at the Kings County Government Center located on West Lacey Boulevard.

### 7.3.4 Flood

The primary indicator of potential flooding is the presence of a floodplain as defined by the Federal Emergency Management Agency (FEMA). A floodplain is defined by FEMA as the area of land adjacent to a water course that may be submerged by flood water during a 100-year storm. These areas are delineated on FEMA Flood Insurance Rate Maps (FIRM) that delineate areas subject to 100-year and 500-year floods. In 2008, FEMA updated the FIRM for the Hanford area. The 2008 FIRM indicate that the Hanford Planning Area is not located in a flood hazard area. However, Hanford is located within a 500-year flood zone. Areas subject to the 500-year flood have a moderate to low risk of flooding. As expected, no floods have occurred in the area during recent years and therefore, there has not been a need to impede or place building restrictions upon development. Hanford has several natural drainage courses and irrigation canals, but 100-year flooding is not a known hazard. Figure 7-1 shows their location.

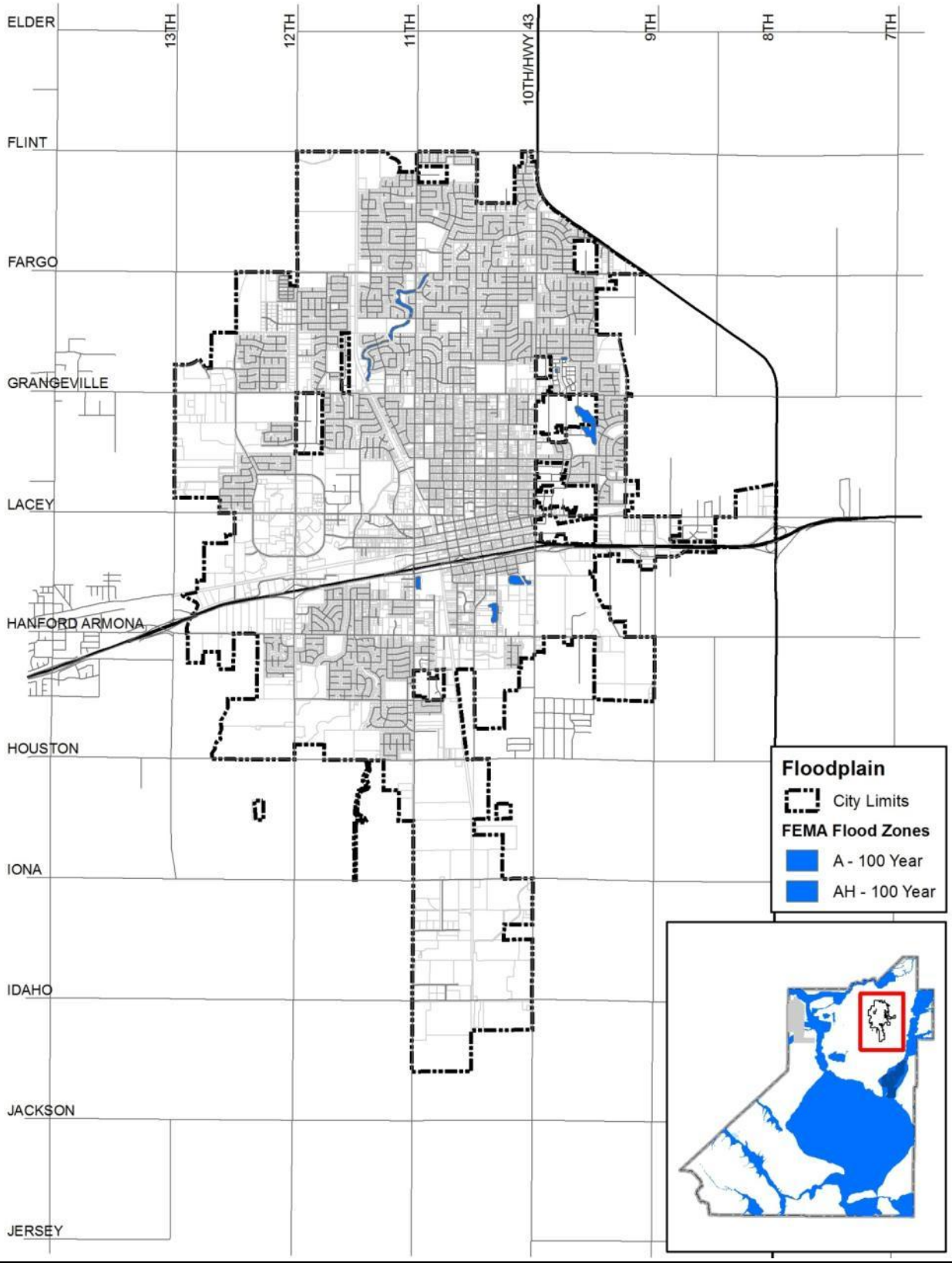
The major irrigation ditches that run through Hanford are the Peoples Ditch and Lakeside Ditch. These ditches are operated and maintained privately by the Peoples Ditch Company and Lakeside Water District respectively.

Peoples Ditch is supplied by the Kings River and flows southward. The primary use for this ditch is for agricultural irrigation, but it also serves as a storm water outfall during high storm water flow periods. North of the city, the Ditch splits into two parts, the East Peoples and Central Peoples Ditches. The East Peoples Ditch flows southward through the center of the city, ending at a basin just south of the SR 198. The Central Peoples Ditch is the main ditch of the two and flows southward along the west side of the City and continues to the southwest corner of the city where it discharges to a basin or flows into the New Deal Ditch that continues towards Stratford. Much of the storm water discharging into People's Ditch first runs through basins before reaching it.

The east branch of Peoples Ditch is a manmade facility, which is part of the water delivery system that diverts water from the Kings River and distributes it to agricultural areas south of the Kings River. The Flood Insurance Study for Hanford (1987) concluded that the Peoples Ditch is not a flood hazard. The city's Flood Damage Prevention Ordinance is based on this study and the 1987 Flood Insurance Rate Map (FIRM).

The Lakeside Ditch is supplied by the Kaweah River system to the east and flows southwesterly on the east side of town. The ditch then continues southward for agricultural irrigation. The Flood Insurance Study concluded that the Lakeside Ditch is not a flood hazard.

*Figure 7-1: Flood Map*



### 7.3.5 Dam Failure

Dam failure results in a different kind of flooding. Dams are manmade structures built for a variety of uses, including flood protection, power supply, agriculture and domestic water supply, and recreation. Dam failures can result from any one or a combination of the following causes: prolonged periods of rainfall and flooding resulting in excess overtopping flows, earthquake, improper design and/or maintenance, inadequate spillway capacity, internal erosion, or failure of upstream dams. Failed dams can create floods that are catastrophic to life and property due to the tremendous energy of the released water. A catastrophic dam failure could easily overwhelm local response capabilities and require mass evacuations to save lives.

Pine Flat Dam, located east of Fresno, and Terminus Dam, located east of Visalia, are the two dams in the region which, if breached, could cause flooding of significance to areas in and around Hanford. If Pine Flat Dam failed while at full capacity, its floodwaters would arrive in Kings County within approximately five hours.

The inundation area for the failure of Terminus Dam covers the area of Hanford east of the BNSF railroad tracks. The inundation area for the failure of Pine Flat Dam is much larger, covering the northern third of Kings County.

The Hazard Mitigation Plan (MHP) for Kings County concludes that dam inundation is not a significant hazard due to the very low probability of dam failure.

### 7.3.6 Fog

Fog results from air being cooled to the point where it can no longer hold all of the water vapor it contains. Rain can cool and moisten the air near the surface until fog forms. The San Joaquin Valley has a unique fog problem called Tule fog. Tule fog is radiated out of the ground and can develop into several layers of fog that can be thousands of feet thick. The fog develops when calm, stable air conditions combine with moisture in the ground and a chilling factor.

***What is SHELDUS?***

*Spatial Hazard Events and Losses Database for the United States*

The Tule fog season in Kings County is typically December through February. Fog typically forms rapidly in the early morning hours. Tule fog can last for days, sometimes weeks.

Fog contributes to transportation accidents and is a significant life safety hazard. The Spatial Hazard Events and Losses Database (SHELDUS)

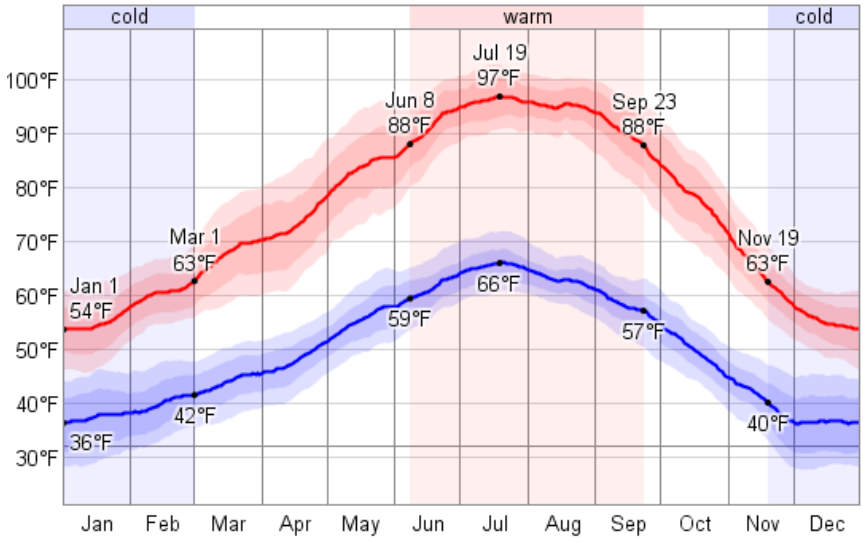
database recorded 13 incidents of damaging fog, responsible for 4 deaths, 23 injuries, and approximately $200,000 in property damage. These accidents can cause multiple injuries and deaths. Other disruptions from fog include delayed emergency response vehicles and school closures. Highways and busy intersections during traffic rush hours become hazardous areas during severe fog events.

Fog occurs every year in Kings County, and damaging fog events have occurred every three years on average since 1962. It is highly likely that fog will occur on an annual basis and that damaging fog events will continue to occur every few years. Fog advisories are used to delay school and bus schedules until later in the morning when the fog has lifted. A well-maintained traffic signage and striping system can help drivers negotiate fog events.

### 7.3.7 Freeze

Extreme cold temperatures can have large impacts on crops in the Hanford area. The growing season is roughly 257 days per year, and the frost-free period usually extends from mid-February to mid-November (Figure 7-2.) While most permanent crops require this cooler dormant season, prolonged freezing temperatures can damage or destroy crops, affecting the economy and agricultural jobs in the Hanford area. Water infrastructure is also at risk as freezing can cause line breaks and frozen valves that disrupt the distribution system.

***Figure 7-2: Average Temperatures in Hanford***



At the Hanford weather station, temperatures drop to 32°F or less an average of 35 days in a year. The lowest daily temperature recorded in Hanford was 15°F. The only recorded snowfall in Hanford was two inches occurring in January 1962. The last extended period of extreme cold hit Kings County in January 2007, causing a state of emergency declaration and a federal disaster declaration. The SHELDUS database recorded six incidents of freezes and severe cold between 1970 and 2005 which caused millions of dollars in crop damage in Kings County.

Past freeze events have caused private and City-owned water pipes and valves to break. Freeze protection requirements for fire protection equipment have been enforced using the current fire codes.

In the past, severe freezes have occurred every few years. Seven damaging freezes are recorded for the last 36 years, which is an average of once every five years or a probability of 19 percent in any given year. Therefore, the probability of future occurrence is likely.

### 7.3.8 Tornados

Based on the National Climatic Data Center (NCDC) data and tornado behavior, there is the potential for tornadoes in the eastern parts of Kings County around Hanford, Lemoore, and Corcoran. The National Weather Service can predict the weather patterns that produce tornadoes and issue tornado warnings or watches when warranted. Most tornadoes last less than 10 minutes though some have been observed to last an hour. Tornadoes in California are rarely severe; however, even small tornadoes can be damaging if they hit a populated area. Because the likelihood is small and the duration typically short, the expected average damage from a tornado in Kings County is considered to be slight.

The SHELDUS reported six occurrences of tornadoes and several funnel clouds on record between 1960 and 2005 in Kings County. All of these events occurred between October and April. Most of the tornados did not result in property damage. However on November 22, 1996, a tornado caused approximately $250,000 in damage at Naval Air Station Lemoore.

### 7.3.9 Summary of Hazard Potential

Table 7-1 summarizes the potential magnitude, spatial extent, probability of occurrence, and level of threat to both the general population and the built environment for each of the identified hazards in Hanford.

*Table 7-1: Hazard Profile Summary*

| Hazard | Probability of Occurrence | Spatial Extent | Potential Magnitude of Hazard | Threat Level to General Population and Built Environment |
|---|---|---|---|---|
| *Dam Failure* | *Unlikely* | *Extensive* | *Critical* | *Low* |
| *Drought* | *Occasional* | *Extensive* | *Critical* | *High* |
| *Earthquake* | *Occasional* | *Extensive* | *Critical* | *High* |
| *Extreme Heat* | *Highly Likely* | *Extensive* | *Limited* | *Medium* |
| *Flood* | *Occasional* | *Significant* | *Limited* | *Low* |
| *Fog* | *Highly Likely* | *Extensive* | *Limited* | *Medium* |
| *Freeze* | *Likely* | *Extensive* | *Limited* | *Medium* |
| *Tornado* | *Occasional* | *Limited* | *Limited* | *Low* |

Source: Kings County Multi-Hazard Mitigation Plan, October 2007.

Population growth and new development in Hanford increase vulnerability to hazards. Modern structures built to code are more resistant to earthquake shaking. The risk of flooding in future development should be minimized by the floodplain management programs of the County and its municipalities, if properly enforced. As the population grows, so do the water needs for household, commercial, industrial, recreational, and agricultural uses. Vulnerability to drought will increase with these growing water needs.

Table 7-2 depicts Hanford's total exposure to hazards in terms of population and the number and values of structures. Although the potential magnitude of hazards in Hanford's planning area are less than in other parts of the county, the highest concentration of population and structures can be found here. This includes many structures of historical significance, as well as cultural significance, such as the Ruth and Sherman Lee Institute for Japanese Art. Hanford is less socially vulnerable than other parts of Kings County based on demographic factors, including a more affluent population. However, there is a higher proportion of population over 65 (10 percent), which the City should plan for in its outreach and response efforts.

*Table 7.2: Exposure to Hazards*

| Hazard | Population | Structures | Value of Structures |
|---|---|---|---|
| *Earthquake Exposure* | *55,470* | *14,080* | *$1,991,860,304* |
| *Flood: Zone A6 Exposure* | | *6* | *$2,549,083* |
| *Flood X-500 Exposure* | | *6* | *$2,549,083* |

Source: Kings County Assessor's data, FEMA Q3, and AMEC

### 7.3.10 Identified Hanford Mitigation Actions

The City of Hanford identified and prioritized the following mitigation actions based on the risk assessment in the 2007 Kings County Multi-Jurisdictional Hazard Mitigation Plan.

1. Complete seismic retrofits of two of City's water storage tanks. The City of Hanford has two water storage tanks holding a combined capacity of 800,000 gallons that are in need of seismic retrofit. Depending on the magnitude of the earthquake, it is possible that the tanks and pipeline connections to the tanks could sustain catastrophic damage. In addition, fire risk is greatly increased after earthquakes due to damaged natural gas lines and electrical lines. Without access to water for firefighting, the community is at great risk to a catastrophic loss due to fire.
2. Develop a GIS database of unreinforced masonry (URM) buildings. The city of Hanford has 58 URM buildings in the downtown core of the city. The Hanford Fire Department has developed a list of the URM buildings for use during an emergency. The creation of a GIS database of URM buildings with all of the basic building information attached would greatly enhance the response of emergency management personnel during an event and could be used to develop a program for retrofitting these buildings over time.
3. Retrofit 58 unreinforced masonry (URMs) buildings in downtown Hanford. Occupancies of these buildings are retail, professional services, businesses, apartments, and historic buildings. The cost to reinforce these buildings may exceed the property value of the buildings. Property and

***What is GIS?***

*GIS stands for Geographic Information System. It organizes data spatially so that it can be projected and displayed on a digital map. Most of the map exhibits in this report were prepared using a GIS.*

business owners are sometimes unable or unwilling to contribute financially toward building reinforcement or replacement due to the lack of funds or failure to see the risk to themselves and the public. The likelihood is great that most of the buildings downtown would be destroyed or severely damaged by a localized earthquake.

4. Adopt the latest International Building Codes to improve disaster resistance of future buildings. The International Building Codes are on a three-year revision cycle. The State of California reviews and modifies the codes. After the review and modifications, the State adopts the codes as required. After the State adopts the code, the City of Hanford also reviews and adopts the codes. The latest revised International Building Code was completed in 2012 and adopted by the City of Hanford.

5. Assess vulnerability of critical facilities, including police/fire stations, hospitals, schools, and others, to identify and prioritize projects for multi-hazard risk reduction. In order to ensure that all of the Hanford's critical facilities are not vulnerable during a large-scale emergency, the City of Hanford's planning, building and fire departments shall complete a vulnerability assessment of all critical facilities within the city, which will include the police/fire stations, hospitals, schools, and county facilities, to identify and prioritize projects for multi-hazard risk reduction.

## 7.4 Manmade Hazards

### 7.4.1 Structure Fires

Due to the large proportion of older buildings in downtown Hanford, there is a higher risk for structure fires. Reducing fire hazards, maintaining appropriate fire services, and providing fire prevention information will help to reduce the risk of loss from fires. In addition, the sooner a seriously injured or sick person receives help, the more likely he or she is to survive. Hanford's early history involved a number of citywide fires that eventually led to the incorporation of the city so that it could provide itself with better fire protection.

### 7.4.2 Hazardous Waste and Toxic Materials Transport

Hazardous materials are substances that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either cause an increase in mortality or an increase in serious, irreversible, or incapacitating illness or pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed. Hazardous materials have been and are commonly used in commercial, agricultural, and industrial applications and, to a limited extent, in residential areas.

Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. Hazardous materials and hazardous wastes are classified according to four properties: toxic (causes human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), and reactive (causes explosions or generates toxic gases).

There is a large variety of hazardous materials that are generated, stored, transported, treated and disposed of throughout the county. These hazardous materials are potential threats to human health and the environment. Health and environmental risks associated with hazardous materials and hazardous wastes are related to releases that can occur at facilities (fixed site) or along transportation routes (off-site). Large quantities of hazardous materials are transported along SR 198, SR 43, and freight rail lines that pass through Hanford, making it susceptible to hazardous spills, releases, or accidents. Currently, 200,000 HAZMAT materials pass through Hanford annually. Releases can occur as a result of human carelessness, technological failure, intentional acts, and natural hazards. Hazardous materials releases can directly cause injuries and death and/or contaminate air, water, and soils. Some hazardous materials present a radiation risk.

Used motor oil, paint, solvents, lawn care and gardening products, household cleaners, gasoline, and refrigerants are among the diverse range of substances classified as hazardous materials. Nearly all businesses and residences generate some amount of hazardous waste. Certain businesses and industries generate larger amounts of such substances including gas stations, automobile service and repair shops, printers, dry cleaners, and photo processors. Hospitals, clinics, and laboratories generate medical waste, which is also potentially hazardous.

Pursuant to AB 2948, Kings County adopted a County Hazardous Waste Management Plan. The Plan was developed in compliance with the many federal, State, and local government laws which apply to management of hazardous waste. Under State law, all industries and agricultural operations that store or handle specified quantities of hazardous materials must provide the County with a hazardous materials business plan detailing the location and quantities of their hazardous materials.

Proper storage, use, disposal, and transport of hazardous materials are necessary to reduce the risk of contamination to surface and groundwater, land resources, air, and environmentally sensitive areas. Serious injuries, loss of life and economic disruption can occur as a result of accidents related to hazardous materials. Informing residents about these dangers, minimizing exposure to hazardous materials, ensuring that County permitting requirements are met, and promoting awareness of emergency preparedness are all measures that will help to reduce the risks associated with hazardous materials.

### 7.4.3 Brownfields

A brownfield site is land previously used for industrial purposes or some commercial uses that may be contaminated by low concentrations of hazardous waste or pollution, and has the potential to be reused once it is cleaned up. The City has identified the Ultramar site as a brownfield site, located south of 3rd Street, north of Davis Street, west of the BNSF railroad tracks, and east of 11th Avenue. Ultramar, a subsidiary of Valero, operated a refinery from the 1930s until 1987. Underground oil plumes from the refinery have spread northeast from the site. Ultramar still maintains offices, decommissioned storage tanks, and equipment, as well as a remediation system that pumps and treats contaminated groundwater. The company has been cleaning up the site since 1995. As of 2010, nearly one half million gallons of petroleum hydrocarbons have been removed from the subsurface as deep as 100 feet.

## 7.5 Noise

### 7.5.1 Introduction

Noise is usually defined as unwanted sound. It consists of any sound that may produce physiological or psychological damage and/or interfere with human communication, work, rest, recreation, and sleep.

Noise has become an environmental pollutant that threatens quality of life. Extreme levels of noise can cause pain and hearing loss. In addition, continuous exposure to noise pollution is associated with hypertension, increased blood pressure, and impaired reading comprehension and long term memory in children.

The regulation of mobile and stationary noise sources is important for the well-being of people, communities and animals. Reducing transportation noise to acceptable levels is critical to the siting of housing.

***NOISE TERMINOLOGY***

**CNEL.** *Community Noise Equivalent Level (CNEL) is the average sound level over a 24 hour period, with a penalty of 5 dB added between 7 pm and 10 pm. and a penalty of 10 dB added for the nighttime hours of 10 pm to 7 am.*

**dBA.** *Acceptable noise level as measured in decibels.*

**Ldn.** *Day/Night average sound level.*

**Leq.** *Equivalent Continuous Noise Level (Leq) is the preferred method to describe sound levels that vary over time, resulting in a single decibel value.*

**Sensitive Receptors.** *Sensitive receptors are those locations or areas where dwelling units or other fixed, developed sites of frequent human use occur.*

**VdB.** *Vibration velocity level in decibels*

### 7.5.2 Regulatory Setting

There are a number of existing federal and state regulations in place to protect people from excessive noise.

**Federal Highway Administration (FHWA).** The FHWA has developed noise abatement criteria that are used for federally funded roadway projects or projects that require federal review. These criteria are discussed in detail in Title 23 Part 772 of the Federal Code of Regulations (23CFR772).

**Environmental Protection Agency.** The EPA has identified the relationship between noise levels and human response. The EPA has determined that over a 24-hour period, an Leq of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at an Leq of 55 dBA and interior levels at or below 45 dBA. Although these levels are relevant for planning and design and useful for informational purposes, they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community.

The EPA has set 55 dBA Ldn as the basic goal for residential environments. However, other federal agencies, in consideration of their own program requirements and goals, as well as difficulty of actually achieving a goal of 55 dBA Ldn, have generally agreed on the 65 dBA Ldn level as being appropriate for residential uses. At 65 dBA Ldn activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

**California Department of Transportation (Caltrans).** Caltrans has adopted policy and guidelines relating to traffic noise that are outlined in the Traffic Noise Analysis Protocol (Caltrans 1998b). The noise

abatement criteria specified in the protocol are the same as those specified by FHWA.

**Governor's Office of Planning and Research (OPR).** OPR has developed guidelines for the preparation of the noise element of the general plan that include land use compatibility guidelines for noise exposure. A noise element shall identify and appraise noise problems in the community for all of the following sources:

1. Highways and freeways
2. Primary arterials and major local streets
3. Passenger and freight railroad operations
4. Commercial and general aviation, and all other ground facilities and maintenance functions related to airport operation
5. Local industrial plants
6. Other ground stationary sources identified by local agencies as contributing to the community noise environment

### 7.5.3 Noise Sources and Associated Sound Levels

Land use compatibility with noise is an important consideration in the planning and design process. Some land uses are more susceptible to noise intrusion than others, depending on the nature of activities expected with that use. For instance, at educational facilities it is important to concentrate and to communicate. An interior noise level in excess of 50 dBA may interfere with these activities. Similarly, interference with sleep may occur at an interior noise level of 45 dBA. Some land uses are more tolerant of noise than others. These uses typically include activities that generate loud noise levels or those that do not require verbal interaction, concentration, or sleep. Commercial and retail facilities require very little speech communication and therefore are generally allowed in noisier environments. Some industrial areas generate loud noises that would interfere more with communication than all but the highest exterior noise levels.

For a better understanding of the sound level of typical noise sources, Table 7-3 provides a comparison of the types of noise sources that individuals are likely to be familiar with and the sound level associated with each.

*Table 7-3: Sound Levels and Relative Loudness of Typical Noise Sources*

| Noise Source or Activity | Sound Level (dBA) | Subjective Impression | Relative Loudness (human judgment of different sound levels) |
|---|---|---|---|
| *Jet aircraft takeoff from carrier (50 ft)* | *140* | *Threshold of pain* | *64 times as loud* |
| *50-hp siren (100 ft)* | *130* | | *32 times as loud* |
| *Loud rock concert near stage, Jet takeoff (200 ft)* | *120* | *Uncomfortably loud* | *16 times as loud* |
| *Firecrackers; Jet fly over (1,000 ft)* | *110* | | *8 times as loud* |
| *Jet takeoff (2,000 ft)* | *100* | *Very loud* | *4 times as loud* |
| *Heavy truck or motorcycle (25 ft); Orchestra (10 ft)* | *90* | | *2 times as loud* |
| *Garbage disposal, food blender (2 ft), Pneumatic drill (50 ft)* | *80* | *Moderately loud* | *Reference loudness* |
| *Vacuum cleaner (10 ft), Passenger car at 65 mph (25 ft); Gas lawn mower (100 ft); Normal speech (3 ft)* | *70* | *1/2 as loud* | |
| *Large store air-conditioning unit (20 ft); Heavy traffic (300 ft)* | *60* | *1/4 as loud* | |
| *Light auto traffic (100 ft)* | *50* | *Quiet* | *1/8 as loud* |
| *Bedroom or quiet living room, Bird calls* | *40* | | *1/16 as loud* |
| *Quiet library, soft whisper (15 ft);* | *30* | | *Very quiet* |
| *High quality recording studio* | *20* | | |
| *Acoustic Test Chamber* | *10* | | *Just audible* |
| *Lowest Threshold of Human Hearing* | *0* | | *Lowest Threshold of Human Hearing* |

**Noise Standards and Compatibility Guidelines.** The State of California's noise insulation standards are codified in the California Building Code. These noise standards are applied to new construction for the purpose of providing suitable interior noise environments. The regulations specify that acoustical studies must be prepared when multi-family housing is proposed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that hotels, motels, dormitories, apartment houses and dwellings other than detached single-family dwellings have been designed to limit interior noise in habitable rooms to acceptable noise

levels. The acceptable interior noise limit for new construction in habitable rooms is 45 dBA CNEL.

Land uses that generate significant noise should be separated from sensitive receptors. The noise compatibility guidelines in Table 7-4 are used for evaluating land use noise compatibility when reviewing proposed land use development projects. A "compatible" land use indicates that standard construction methods will attenuate exterior noise to an acceptable indoor noise level and people can carry out outdoor activities with minimal noise interference. Evaluation of land use that falls into the "conditionally compatible" noise environment should have an acoustical study. For land uses indicated as "conditionally compatible," structures must be capable of attenuating exterior noise to the indoor noise level. For land uses indicated as "incompatible," new construction should generally not be undertaken.

## *Table 7–4: Land Use/Noise Compatibility Guidelines*

| Affected Land Use Category | Exterior Noise Exposure (dBA CNEL) | | | | |
|---|---|---|---|---|---|
| | <60 | 60-65 | 65-70 | 70-75 | 75+ |
| ***Residential*** | | | | | |
| • *Single-Family, Senior Housing, Mobile Homes* | | *45** | *45** | *45** | |
| • *Multi-Family* | | | *45** | *45** | |
| • *Mixed Use* | | | *45** | *45** | *45** |
| ***Commercial*** | | | | | |
| • *Automotive, Service Commercial* | | | | | |
| • *Office* | | | | | |
| • *Shopping Center* | | | | | |
| • *Visitor Accommodations* | | | *45** | *45** | *45** |
| ***Industrial*** | | | | | |
| ***Institutional*** | | | | | |
| • *Infrastructure* | | | | | |
| • *Worship Facilities, Educational Facilities, Community Centers, Libraries, Museums, Cultural Centers* | | *45** | *45** | *45** | |
| ***Open Space, Parks and Recreation*** | | | | | |
| • *Community and Neighborhood Parks* | | | | | |
| • *Golf Courses, Athletic Fields* | | | | | |

*Internal Noise Level

| Level of Compatibility | Indoor or Outdoor | Attenuation Standards |
|---|---|---|
| *Compatible* | *Indoor Uses* | *Standard construction methods should attenuate exterior noise to an acceptable indoor noise level.* |
| | *Outdoor Uses* | *Activities associated with the land uses may be carried out.* |
| *Conditionally Compatible* | *Indoor Uses* | *Building structure must attenuate exterior noise to the indoor noise level. Conventional construction, but with closed windows and fresh air supply systems will normally suffice.* |
| | *Outdoor Uses* | *Best practices for reducing noise interference should be incorporated to make outdoor activities acceptable.* |
| *Normally Incompatible* | *Indoor Uses* | *If new construction or development does proceed, a detailed acoustical analysis is needed to identify the nose reduction requirements and needed nose insulation features shall be included in the design.* |
| | *Outdoor Uses* | *Feasible noise mitigation techniques shall be analyzed and incorporated to make the outdoor activities acceptable.* |
| *Incompatible* | *Indoor Uses* | *New construction should not be undertaken.* |
| | *Outdoor Uses* | *Severe nose interference makes outdoor activities unacceptable.* |

**Noise Ordinances.** To control noise from fixed sources, which have developed from processes other than zoning or land use planning, many jurisdictions have adopted community noise control ordinances. Such ordinances are intended to abate noise nuisances and to control noise from existing sources. They may also be used as performance standards to judge the creation of a potential nuisance, or potential encroachment of sensitive uses upon noise-producing facilities. Community noise control ordinances are generally designed to resolve noise problems on a short-term basis (usually by means of hourly noise level criteria), rather than on the basis of 24-hour or annual cumulative noise exposures. The City of Hanford currently does not have a citywide Noise Ordinance, however it has set noise standards for the industrial park in the Kings Industrial Park Performance and Development Standards . The cities of Visalia, Tulare, Corcoran, and Lemoore all currently have a Noise Ordinance.

### 7.5.4 Noise Sources in Hanford

The major noise sources in Hanford are related to vehicle traffic on highways and major arterial roads. Other noise sources include rail transportation, industrial activities, and the Kings Speedway at the Kings County Fairgrounds.

**Highways and Freeways.** Highway noise is related to such factors as vehicle speed, traffic volume, degree of exhaust muffling, roadway condition, and composition of the traffic itself--trucks producing more noise, and noise of a different character, than passenger cars. Noise levels can vary greatly over time. For example, due to daily commute patterns, highway noise measured at a distance of 100 feet from the roadway may range between 50 and 90 decibels depending upon the time of day and amount of traffic.

Traffic noise is usually highest in urban settings where roadways are most densely located. Both SR-198 and SR-43 produce substantial traffic noise with decibel levels of 69 to 70 for SR 43 and SR 73 to 74 for SR 198 within the Hanford city limits.

**Arterials and Major Streets.** As the city builds-out traffic will increase on arterial and collector streets. As this traffic increases so will the noise associated with the traffic. As noise increases additional means of mitigating noise impacts on residents will be required. The most common means of noise mitigation along arterial and collector streets are setbacks, noise barriers, and building insulation.

**Railroads.** Local railroad lines include an east-west Union Pacific Railroad (UP) line and a north-south Burlington Northern Santa Fe (BNSF) line. The east-west UP tracks are currently used by the San Joaquin Valley Railroad Company, which operates two trains of approximately 5-10 cars each per day, five days per week, at approximately 10-20 miles per hour. The BNSF is located in the central portion of the city in a heavy commercial/industrial area. The BNSF line carries eight Amtrak passenger trains and 18 to 22 freight trains per day. Most north-south rail traffic moves through the county at approximately 50 miles per hour.

In order to quantify train activity and the associated noise levels along the BNSF tracks, continuous noise monitoring of railroad activity on the BNSF tracks was conducted in 2007 for the Noise Element of the Kings County General Plan. According to the monitoring, the highest noise levels resulting from trains occur in areas near at-grade rail crossings where trains are required to sound their warning whistles. Train warning whistles can generate noise levels of approximately 100 to 105 dBA at a distance of 50 feet. Ground-borne vibration levels may exceed the Federal Transportation Administration's vibration impact criteria (72 to 80 VdB depending on the frequency of events) and may affect sensitive land uses within approximately 100 to 200 feet of the tracks.

As of early 2014, the California High Speed Rail Authority has been moving forward on an alignment for the High Speed Train that would run through the far easterly portion of the Planning Area. High-speed trains are generally quieter than conventional trains. Because high-speed trains are electrically powered, they generate the same noise at about 150 mph as a commuter train generates at 79 mph. Grade-separated tracks will eliminate the need for bells or horns. A train moving at 220 miles per hour - the top speed of California's planned high-speed trains - will be heard for about four seconds. By comparison, a 50-car freight train traveling at 30 miles an hour can be heard for 60 seconds. A high-speed train traveling 125 mph will produce an hourly equivalent sound level of about 73 decibels from a distance of 100 feet - less than a commuter train with a blowing horn.

**Airports.** The Hanford Municipal Airport generates noise that impacts surrounding areas. The average annual aircraft operations in 2005 were approximately 7,600 with 30% of those being single-engine propeller aircraft and 70% being itinerant operations. Annual operations are

forecasted to be 13,800 and the number of based aircraft is expected to be 128 by the year 2025.

The Kings County Airport Land Use Compatibility Plan contains noise compatibility criteria that are an important consideration when making land use decisions within the airport spheres of influence. Their Airport Compatibility Zone Map is shown in Figure 7-2.

**Del Monte Foods.** Del Monte Foods is located at 10652 Jackson Avenue just south of the Hanford City Limits. Noise generation at the facility was quantified through a series of noise level measurements in 2007. At the property just south of the facility, noise measurements yielded an average noise level of 64 dBA at an approximate distance of 615 feet from what appeared to be the center of noise generation. At the property just east of the facility, noise measurements yielded an average noise level of 63 dBA at an approximate distance of 700 feet from what appeared to be the center of noise generation.

**Penny-Newman Milling Company.** Penny-Newman Milling Company is located at 10188 Kansas Avenue south of Hanford. The facility reportedly generates 168 truck trips per day. Noise producing equipment at the facility include: 2 boilers, feed blending mixers, tractors, and skip loaders. Currently, the facility is significantly set back from any neighboring properties.

**Solid Waste Disposal**. Kings Waste and Recycling Authority (KWRA), which is managed by the Kings County Waste Management, operates a solid waste disposal and recycling facility at 7803 Hanford-Armona Road near SR 43 and SR 198 in the southeastern portion of the city. Solid waste disposal and transfer facilities require heavy equipment and produce loud truck noise. At transfer stations the most significant noise sources are trucks and front loaders. The access roads leading to landfills and transfer stations may also be significant sources of noise due to the large volume of vehicles they carry. Noise impacts are generally limited to daytime.

*Figure 7-3: Airport Compatibility Zone Map*

**Agriculture.** The operation of heavy agricultural equipment may be a major source of noise during the growing season. Maximum noise levels generated by farm-related tractors and stationary diesel engines typically range from 57 to 85 dB at a distance of 50 feet. Such levels generally do not last more than a few hours at a given location unless a stationary piece of equipment such as a pump motor is involved. Crop dusters vary in horsepower ratings and altitude flown but may register around 85 decibels at 600 feet. There are numerous agricultural uses within the County protected by the King's County's Right-to-Farm Ordinance. The Ordinance recognizes that "…agricultural activities and operations, including but not limited to, equipment and animal noise; are conducted on a 24-hour a day, seven-day-a-week basis…" in the agricultural areas of the county.

**Auto Racing.** From March through November each year, weekend auto racing events are held at the Kings Speedway at the Kings County Fairgrounds in southeast Hanford. Noise levels generated by auto racing events can reach 95 decibels per auto at the track.

**General Automotive/ Commercial Land Uses.** Noise sources associated with service commercial uses, such as automotive repair facilities, wrecking yards, tire installation centers, car washes, transfer yards, and loading docks, are found at various locations throughout Hanford. The noise emissions of these types of uses are dependent on many factors and are difficult to quantify precisely without individual study. Noise generated by these uses contributes to the ambient noise environment in their immediate vicinity, and should be considered where either new noise-sensitive uses are proposed nearby or where similar uses are proposed in existing residential areas.

## 7.6 Public Health and Fitness

### 7.6.1 Introduction

More than 50% of our health is determined by where we live and work. Communities can be developed in such a way that promotes good health. Throughout the state numerous examples of communities coming together to develop innovative solutions that create healthier communities and improved health outcomes are increasing. Components of healthy living include walkable streets, convenient and accessible parks, increased opportunities for social interaction, and land use policies that promote healthier living.

### 7.6.2 Obesity

Adult obesity is defined as having a Body Mass Index (BMI) of 30 or higher. Obesity is a risk factor for numerous health ailments to individuals of any age. Obese adolescents face a risk of developing serious health problems including Type 2 diabetes, high blood pressure, high blood lipids, asthma, sleep apnea, cancer, and orthopedic problems. Unhealthy eating habits and lack of physical activity are the primary causes of obesity.

*Body Mass Index is a measure of body fat based on a comparison of height and weight.*

The California Health Interview Survey (CHIS) conducted in 2003 revealed that 16.1% of adolescents, 67.5% of non senior adults, and 59.2% of seniors were considered overweight and obese in Kings County. Rates of overweight and obesity have also gone up for children and adolescents. In a 2010 study by the Lucile Packard Foundation for Children's Health revealed that the percentage of public school students in grades 5, 7, and 9 with BMIs in the overweight or obese ranges was 40.5% for Hanford.

According to the "County Health Status Profiles 2006" prepared by the California Department of Health Services, Kings County has the highest age-adjusted death rate from diabetes in California. Obesity and physical activity are two of the risk factors that increase an individual's chances of developing Type 2 diabetes.

### 7.6.3 Asthma

Asthma is a chronic inflammatory lung disease characterized by recurrent episodes of breathlessness, wheezing, coughing, and chest tightness, called exacerbations. Exacerbations can be triggered by exposures and conditions such as respiratory infections, house dust mites, animal dander, mold, pollen, exercise, tobacco smoke, and indoor and outdoor air pollutants. Although there is no cure for asthma, exacerbations can be reduced with appropriate management, which includes proper use of medications and provision of a healthy physical environment.

*Rates of asthma are highest among children who live in Fresno and Kings Counties, where over 24% of children ages 0-17 have been diagnosed with asthma, compared with 15.8% Valley wide.*

Asthma prevalence increased dramatically during the last three decades. According to 2005 data from the California Health Interview Survey, the prevalence rate of asthma in Kings County among children 17 and under is 24.7%, the second highest in the state.

Asthma is more common among African American and American Indian children than it is among Latino, Asian or White children in the

San Joaquin Valley. Over 1 in 3 African American and American Indian children have been diagnosed with asthma, compared with 1 in 6 White children, 1 in 8 Latino children, and almost 1 in 10 Asian children. Where children live also seems to be a factor in asthma diagnosis.

Research offers support in defining the relationship between environmental factors and respiratory conditions of children. There is evidence of an association between air pollutants and increased respiratory disease and symptoms in children with asthma, impaired lung function and growth in children, and increased hospitalizations and emergency room visits for children with asthma. Chronic exposure to particulate matter has already been associated with increased mortality in adults from respiratory disease and lung cancer, and there is now evidence to suggest that it may be associated with increased mortality from respiratory causes in infants. Compromised air quality is a major contributing factor in the frequency and severity of asthma symptoms in children with asthma and is associated with potentially deadly consequences for children and adolescents affected by this condition. These findings have important implications for the San Joaquin Valley considering that ozone and particulate matter air pollution in the Valley is among the worst in the State.

### 7.6.4 Valley Fever

Valley Fever, or coccidioidomycosis, is a pulmonary infection of human and other mammals caused by inhalation of the spores of the fungus Coccidioides immitis, which grows in the soil of the Southwestern United States. The fungus is prevalent in the soils of the San Joaquin Valley, including Kings County. Transmission of Valley Fever occurs mostly through naturally occurring winds, as well as dust storms blowing dust containing Valley Fever fungus spores from the surrounding foothills into cities. Coccidioides immitis is most prevalent in undisturbed soils. Since Hanford is surrounded by disturbed agricultural land; the risk of infection is considered low.

Seventy percent of the reported cases of Valley Fever in California from 1991 through 1993 occured in the San Joaquin Valley, according to a 1994 report by the U.S. Centers for Disease Control and Prevention. People who work in dusty fields or construction sites are most at risk, as are certain ethnic groups and those with weak immune systems. Newcomers and visitors passing through the region may also be more susceptible. The number of reported cases of Valley Fever rose by 537 cases between 1990 to 2011. Studies have established that persons over

the age of 55, and those in an immune-compromised state are at higher risk for developing Valley Fever. African-Americans and Filipinos are generally five to 10 times more likely to contract life-threatening forms of the illness.

## 7.7 Environmental Justice

### 7.7.1 Introduction

State law defines environmental justice as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. As of 2008, Hanford has an ethnically diverse population with 50% White, 5% African-American, 2% American Indian, 2% Asian, 6% Multiracial, and 39% Hispanic. Additionally, the city has a substantial number of residents who are considered low income. Approximately 13.3 percent of the city population was below the federal poverty level in 2007. As of October 2013, the city had an unemployment rate of 12.9 percent compared to the statewide average of 8.7 percent. These statistics provide ample evidence of a significant environmental justice population in the city.

### 7.7.2 Healthy Eating Opportunities

In coordination with the County Public Health Department, city and county planning efforts are carrying forward an increased awareness of how the built environment impacts the health and well being of residents. Nationwide and locally, there is an increasing number of youth and adults that are experiencing health complications related to obesity and diabetes. The increasingly sedentary life style of these at risk age groups has been a catalyst for government agencies to look toward new ways of facilitating a comprehensive approach to improving the health of city and county residents by increasing opportunities for healthy foods such as fresh fruits and vegetables in the communities.

Specific policies can help facilitate integration between food producers and consumers, and remove many of the typical barriers to direct selling of produce. For urbanized areas, the USDA has defined a "food desert" as a low income area that is further than one mile from a market selling fresh food. Kings County has adopted policies that provide for access to healthy food choices.

***The Central California Regional Obesity Prevention Program***

CCROPP is dedicated to creating environments that support healthy eating and active living. CCCROPP advocates for new and improved policies to make opportunities for healthy foods available.

### 7.7.3 Relationship of Health to Access to Parks

Research has also shown that the availability of opportunities to engage in physical activity is positively correlated with the amount of physical activity people engage in. Therefore, the availability of parks and recreation services are vital to increasing physical activity across all age sectors and plays a key role in reducing obesity rates. When evaluating the availability of these opportunities, one must consider their accessibility and proximity to residents in addition to their mere existence. Physical barriers, safety concerns and distance to parks and facilities often prevent residents from using the facilities and programs. Research has found that larger sizes of parks and open spaces do not increase how often or how much people use them, but rather the distance to the park or open space is the greatest determining factor.

*"...the availability of parks and recreation services are vital to increasing physical activity across all age sectors and plays a key role in reducing obesity rates."*

Although today's youth continue to participate in outdoor activities, they are still not meeting recommended weekly activity levels. Even with higher overall outdoor recreation participation and a higher percentage of participants that take part in an outdoor activity at least twice a week (37%) than other age groups, outdoor activity among youth makes up only a small portion of the CDC recommended 60 minutes of physical activity on most, preferably all, days of the week. Unfortunately, national trends for outdoor activity show that young adults are even less active than youth. The frequency of outdoor activity starts to drop off from youth to young adulthood (around age 18) – the percentage of young adults who take part in outdoor activities twice a week or more drops to 25% for young adults, a 30% decrease from youth rates.

Hispanics in California have fewer people that meet the recommended activity levels, but are more active than Hispanics nationwide. Hispanic activity levels are significantly lower than the average in all age categories at the state level and nationally, except for the 18-24 age range. Additionally, more so than other children in America, Hispanic youth are statistically more obese and unhealthy. Nearly 25% of Hispanic children aged 12-18 are overweight, compared to 12.9% of Whites and 21.8% of Blacks.

According to the 2009 Parks, Recreation, and Open Space Master Plan, many residents would like to see more recreational/fitness activities provided to youth, in order to introduce them to a healthy and well-balanced lifestyle and to fight the obesity epidemic facing the country. The prevalence of obesity, especially childhood obesity, has nearly tripled over the past 25 years, so that more than 1 in 6 children between

the ages of 6 and 19 are obese today. The availability of neighborhood facilities for physical activity may be particularly relevant for youth, who are unable to drive and whose activity is often limited to the immediate distance they are able to walk or bicycle. Parks and recreation agencies can play a huge role in combating this epidemic.

# BIBLIOGRAPHY

# BIBLIOGRAPHY

## WEBSITES


Bureau of Labor Statistics. 2013. *Demographics*. Retrieved December 2013, from http://www.bls.gov

California Department of Conservation. 2013. *Land Use Research*. Retrieved October 2013, from http://www.conservation.ca.gov

California Department of Education, 2012-2013 *Enrollment Data*. http://data1.cde.ca.gov/dataquest/SearchName.asp?cName=16639251634245&Topic=Enrollment&Level=School&rbTimeFrame=oneyear&rYear=2012-13

California Department of Employment Development. 2010. *Employment Demographic Research*. Retrieved December 2013, from http://www.edd.ca.gov

California Department of Finance. 2000-2013. *Demographic Research*. Retrieved December 2013, from http://www.dof.ca.gov

California Department of Fish and Wildlife. 2013. *California Natural Diversity Database (CNDDB)*. Retrieved December 2013, from http://www.dfg.ca.gov

California Department of Justice. 2009. *Climate Change, CEQA & General Plans*. Retrieved October 2013, from http://ag.ca.gov/globalwarming/pdf/CEQA_GP_FAQs.pdf

California Retail Survey. 2013. *Market Research*. Retrieved December 2013, from http://californiaretailsurvey.com

California State Board of Equalization. 2013. *Tax and Income Research*. Retrieved December 2013, from http://www.boe.ca.gov

Dun & Bradstreet. 2013. *Economic and Business Research*. Retrieved December 2013, from http://www.dnb.com

Environmental Systems Research Institute, Inc. (ESRI). 2013. *ESRI Imagery*. Retrieved December 2013, from http://www.esri.com

Federal Emergency Management Agency (FEMA). 2013. *Flood Zones*. Retrieved December 2013, from http://www.fema.gov

Kings Area Rural Transit (KART). 2013. *Transportation Routes*. Retrieved December 2013, from http://www.mykartbus.com

Kings County. 2012. *General Information*. Retrieved December 2013, from htto://www.countyofkings.com

National Agriculture Imagery Program (NAIP), United States Department of Agriculture Farm Service Agency (USDA FSA). 2013. *Agriculture Designations*. Retrieved November 2013, from http://www.fsa.usda.gov

US Census Bureau. 2012. *American Fact Finder Fact Sheet*: Hanford, CA & Kings County, CA. Retrieved December 2013 from http://www.factfinder.census.gov

US Census Bureau. 2000-2013. *Profile of selected social, economic and demographic characteristics: Hanford, CA & Kings County*. Retrieved December 2013, from http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml

US Census Bureau. 2012. *State & County Quickfacts:* City of Hanford & Kings County, CA. Retrieved December 2013, from http://quickfacts.census.gov

US Census Bureau Center for Economic Studies. 2011. *Economic Demographic Research.* Retrieved December 2013, from http://www.census.gov/ces

Wooden, Ruth. 2006. *The future of Public Libraries in an Internet Age*. Retrieved November 2013, from www.interscience.wiley.com

## PRINTED REFERENCES

Bergman, John. *The Southern San Joaquin Valley: A Railroad History*. 2009.

Cal EMA Fire and Rescue Division. 2012. California Fire Service and Rescue Emergency Mutual Aid System: Mutual Aid Plan

City of Hanford. 2002. Hanford Open Space Element

City of Hanford. 2005. Arsenic Reduction Study

City of Hanford. 2005. Storm Water Management Plan (SWMP)

City of Hanford. 2007. Demand and Market Assessment of a Retail Development Located in the City of Hanford, California

City of Hanford. 2007. Hanford Adopted Sphere Update

City of Hanford. 2009. Hanford Parks, Recreation and Open Space Master Plan

City of Hanford. 2010. Air Quality Element Background Report

City of Hanford. 2010. Municipal Airport Master Plan

City of Hanford. 2011. Kings Industrial Park Strategy

City of Hanford General Plan. 2005. Hazards Management Element, Seismic Safety, Safety, Noise & Air Quality

City of Hanford. 2012 Capital Improvement Budget

Defenders of Wildlife. 2012. Smart from the Start: Responsible Renewable Energy Development in the Southern San Joaquin Valley

Governor's Office of Planning and Research. 2003. State of California General Plan Guidelines

Governor's Office of Planning and Research. 2010. General Plan Guidelines: Complete Streets and the Circulation Element

Hanford Centennial Committee. *Hanford: A Pictorial History.* 1990.

Kaiser Permanente Health Element; The Healthy Eating Active Living (HEAL) Cities Campaign

Kings County Associated of Governments in cooperation with the cities of Avenal, Corcoran, Hanford, and Lemoore, and the County of Kings. 2011. Kings County Regional Bicycle Plans

Kings County. 2004. Airport Land Use Compatibility Plan. Prepared for County of Kings, City of Corcoran and City of Hanford

Kings County Association of Governments. 2011. Kings County Regional Transportation Plan

Kings County Department of Public Health. 2008-2009. Kings County Community Health Status Report

Kings County. 2007. Kings County Multi-Jurisdictional Multi-Hazard Mitigation Plan

Kings County 2035 General Plan. Resource Conservation Element

Kings County, CA. 2008. Agricultural Land Conversion Study

LAFCo of Kings County. 2008. Sphere of Influence graphic

Nelson, Arthur. 2013. *A Home for Everyone: San Joaquin Valley Housing Preferences and Opportunities to 2050*

Redevelopment Agency of the City of Hanford. 2009-2014. Five Year Implementation Plan

Teitz, Michael; Charles Dietzel, and William Fulton. *Urban Development Futures in the San Joaquin Valley.* 2005. Public Policy Institute of California